

THE MAGAZINE OF
Fantasy AND

Science Fiction

JUNE

40¢

CLIFFORD SIMAK
HOWARD FAST
JOHN BERRY
AVRAM DAVIDSON
CHARLES HENNEBERG



Fantasy and Science Fiction

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Including Venture Science Fiction

The Non-Humans (<i>short novelet</i>)	CHARLES HENNEBERG	5
Fireside Talk	H. F. ELLIS	23
Cato the Martian	HOWARD FAST	28
Ed Lear Wasn't So Crazy (<i>verse</i>)	HILBERT SCHENCK, JR.	39
The Swamp Road	WILL WORTHINGTON	40
✓Slammy and the Bonneygott	MRS. AGATE	54
The Sixth Season	AVRAM DAVIDSON	62
Science: The Bug-Eyed Vonster	ISAAC ASIMOV	73
Books: New Maps of Hell	DAMON KNIGHT	84
✓The Golden Bugs (<i>novelet</i>)	CLIFFORD D. SIMAK	88
Beyond Ganga Mata	JOHN BERRY	122
Ferdinand Feghoot: XXVII	GRENDAL BRIARTON	129
Index		130
In this issue . . . Coming soon		4
Cover by Emsb ("Emsb's version of a soft landing")		

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In this issue . . .

It is a continuing pleasure to have a series of new stories from Howard Fast (incidentally, a new manuscript has just come in from him, which will be along shortly). We asked him why he was writing them, and this was his reply:

"For years, now, I have had in mind to write about a dozen moral tales which, in a gentle manner, would satirize one or another aspect of man's mortality. I chose the science fiction form for much the same reason Wells chose it, because it is intrinsically delightful and imaginative, because it intrigues readers, and because people are apt to look more indulgently and objectively upon a fable than upon a finger pointed directly at them. I send them to you because you have a delightful magazine; and I hope that when they are done, they will make a book. They are written lightly, with no ax to grind, and I hope they can be read in the same manner. They can be read for the moral by those who are concerned with morality or for the story by those who are not."

The story by John Berry on page 122 originally appeared in the Southwestern Review; later, Mr. Berry adapted the central situation, and included it in his prize-winning Macmillan novel, KRISHNA FLUTING.

Remember that series of one-page vignettes by Fredric Brown which appeared here some time ago? Two of them—"Imagine" and "Blood"—are included on a new Warner Brothers LP titled "Introspection IV." The record carries 9 other Brown vignettes, some fantasy or science fiction, some not, all read by a young radio personality, Johnny Gunn, to the modern jazz arrangements of Don Ralke.

Coming soon . . .

"To the Tombaugh Station," a novelet by Wilson Tucker . . . "Things," by Zenna Henderson . . . "The Simian Problem," by Hollis Alpert . . . "A Few Miles," a novelet by Philip Jose Farmer . . . and promised to us soon—a two-part serial by the inimitable Alfred Bester.



Another rich Henneberg story imported from F&SF's French edition . . . this one offering as good an explanation as any we've seen of a certain phenomenon in our cultural past.

THE NON-HUMANS

by Charles Henneberg

(translated by Damon Knight)

THESE ARE NOT JUST THE RAMBLINGS of an old condottiere.

There are more things in this terraqueous universe, and under heaven, than the priests talk of; and I wasn't always the leathery old soldier who sits here, spinning his yarns over a mug of mead.

I'm telling you of the Florence of yesteryear. Not that anthill scorned by the Signory and a blushing Gonfalonier, but the leonine City of the Red Lily, that was daughter and mistress of the brave. The town that astonished all Italy, and drew foreigners like a lodestone.

1490 . . . a year that seems so far away, yet comes so near, as soon as I close my eyes! I was young then, a little mad, as we all are at twenty, and well pleased with my person, which the ladies often found to their liking. I be-

longed, you know, to the noble family of the Pazzi, which had yet been spared its exile and its illustrious misfortunes; one of my uncles was a cardinal, the galleys of another traded as far as the shores of Algeria. My widowed mother and I lived in a charming pink palace in Fiesole. Yes, it was destroyed, later on; as so many things were. But that has nothing to do with my story.

You have heard men speak of those matchless years, when a divine breath passed over Italy. It came from the snows of Olympus, from the violet sea, from golden Byzantium under the barbarian's heel; in our hearts and in the soil of our hills, it awoke old sleeping gods, the graces and the arts. In every mountain spring, a timid naiad awoke, parting the green strands of her hair; at dawn, on the trampled grass, one

saw the dancing trail of a satyr. Artists began to paint and carve, women were proud and beautiful, and science, abandoning its alchemist's alembics, looked to the skies. Afterward, we had Girolamo Savonarola and the Inquisition. . . . Let us pass on.

For me (O marvel!) those years corresponded to my youth. I wasted little time in the counting house of my merchant uncle, selling Greek velvet and the incense of the Axumites. I composed sonnets, like Cornazano, music—like Lorenzo de' Medici—and I numbered among my friends the master Perugino. This famous artist had once painted the portrait of my parents, and my sainted mother held him in great esteem.

It was in his studio, in fact, that I met Nardo—you know Nardo, the youngest of his students, whom the master used as model for his angelic musicians? You can still see him here and there among the frescoes, playing on the harp or the rebeck—his pearly skin, blond curls, and his strange, empty eyes. . . . "Half his soul always seems to be absent," said the master, with a laugh. Anyhow, Nardo—see, his name escapes me (it's old age, or that wound from Agnadel). It matters little; it will come back to me. He was an inn-servant's bastard, but legitimized by his father, a country squire. Afterward, he made his own way. . . .

I went often to the studio of Messer Perugino. His nature was happy, his genius limitless. It was he, no other, who endowed Italy with those misty twilights, between darkness and day, broken by a ray of supernal dawn; to him, too, we owe those heads of youths and pensive virgins, the velvet-smooth faces, the eyelids half-closed on a ravishing secret. Later artists understood and defined these things, but none was able to copy that silent expectation of a miracle: it belonged to our era.

Messer Perugino was then at the zenith of his fortunes, and he surrounded himself with brilliant young men. Being rather vain, he had also launched the fashion among artists of wearing a long purple or black velvet cloak, which became him very well, and a Florentine beret tilted over the ear.

To entertain his friends and their merry companions, the "honestae meretrix" of Florence, the master had rented and redecorated a huge shack on the Arno; it had formerly been part of a row of grain warehouses, deserted since the Great Plague; it adjoined the Alley of the Old Jews, but Perugino liked it. Outside, this vast structure still looked run-down, but the interior was like a cathedral vault—many rooms had been made into one, and the walls were covered with extravagant drawings. We took much pleasure there, drank deep and sang bac-

chic hymns in Latin, while the little tradesmen of the neighborhood trembled in their beds, and their chaste spouses hastily snuffed out the candles, crossing themselves . . . or got up to shoot the bolts on their daughters' doors.

Their daughters . . . We'll come to them.

One evening when I was at Messer Perugino's, and he had taken it into his head to paint me as Saint Sebastian pierced with arrows (as Mantegna did with one of his friends), a strange personage came to visit the master. Tall, thin, dressed in black, with his leathery complexion and his crooked features, he might have been mistaken for the Wandering Jew himself, were it not that he wore a sword like a gentleman.

The visitor introduced himself: Messer Deodat Lazarelli, which was, he informed us voluntarily, a corruption of his Arab name of Al-Hazreh. You say there was a scholar of that name? I know him not. The Deodat in question explained to us that his ancestors had been barbaric kings in Cathay, living on herbs and mare's milk, and offering their wives to passing strangers in token of friendship. Our Deodat had been converted to the Christian faith, and, leaving that plateau where his spiritual advancement made it impossible to stay, he had made his fortune and retired to Florence, "the city,"

he said, "which has become the center of the universe." And he asked the master of Perugia to paint a portrait of his daughter, whose name was Noëmi or Nahema.

The master had other commissions in hand, and the prospect of painting a mud-faced girl little pleased him; he declined the offer, recommending certain colleagues of lesser renown to Al-Hazreh. But the old rascal knew how to make himself heard; he wasted no time in discussion, but emptied a long purse of red Morocco leather on the table.

The painter's eye gleamed—not that Perugino was in the least avaricious, but he could already see all the beautiful things he might bring into being from that golden heap. In a toneless voice, he told the Arab that his daughter might come to pose on the morrow.

"No," said the other dryly, in a changed tone, as if he had bought the right to be insolent. "My daughter cannot leave my house, nor appear in public. You will come to me. Don't think I am wasting your time: I live behind your house, just inside the Alley of the Old Jews, in the seed-merchant's house which I have purchased."

"But," said I, "nobody could live in that ruin! The place has been abandoned for a hundred years or more!"

(I thought I knew Florence—unforeseeable, inexhaustible city!)

"I live there," retorted the man haughtily. (My chest was bare and daubed with "dragon's blood"—no doubt he took me for a hired model.) "As for the rest, I shall send a slave to conduct you there, master."

Without a glance for me, he bowed to the master and left.

"What think you on that pismire, Guido?" Perugino asked me.

"That he lacks courtesy, and that my hand itches. . . . But he's a stranger; we must make allowances for his barbaric habits. What will you do?"

"I know not," answered the artist. "Bah! Gold is always good to take! If the wench be not too ugly, I'll botch it together in three sittings and leave the background for Nardo to finick at. He'll give a good account of himself—won't you, my chick, my swan?"

Concealed behind the tapestries, Nardo gave us a hint of his charming, drowsy smile.

I left the studio supposing I should never see or hear again of the unpleasant Al-Hazreh.

But destiny toys with men, and that same evening—out of idleness, and to try out my new black sorrel—I wandered down the Alley of the Old Jews. There I surprised a singular activity: a façade was being covered with mortar, the metalwork of the shutters

was being polished; giant Negroes were carrying bundles of golden cloth, ebony furniture inlaid with mother-of-pearl, jade and onyx vases, and those astonishing screens of cloisonné enamel which were beginning to reach us from the Orient. Others were spreading a deep-piled Mirzapur on the steps, still others were sponging the flagstones of the entry with aromatics, burning incense and benzoin there.

The installation of a prince, if such he was! I stayed there, surprised and charmed: in a few days and without commotion, these diligent servants had transformed the ruin into a fairy palace. But porters were springing up afresh, bent caryatids carrying chests in the sinister form of coffins, made of pale lemonwood enriched only by its grain. A fantastic thing: while they were setting them on the ground, a chorus of thin and discordant voices reached me, as if from a flock of hungry sparrows; I turned, thinking a crowd of children had followed me, but the Alley was deserted, the gabled houses dark, the doors closed.

Nevertheless, a yellow rose, with a peppery scent, fell on the neck of my sorrel.

After that, I had no rest because I had failed to enter that house of Barbary. Youth is so fashioned: if Al-Hazreh had been less secretive and jealous, never

would I have found myself under his windows. And if the rose had been white and of a less piquant perfume . . . It is natural to invent one's own chimeras: already I was imagining that beauty in the robes of an Empress of Cathay, with tilted eyes and a skin of yellow satin.

. . . In which I was mistaken.

The next morning, meeting Nardo accompanied by an enormous black who carried brushes and canvas, I fell into step. Nardo made me a present of his angelic smile. The morning was mild, the sky of an exquisite mauve; silver carillons fell from the campaniles, and mist floated on the transparent river.

I was apprehensive of meeting the gallows-bird Al-Hazreh, but he had the good grace to absent himself, and we went up, through all the enchantments of the thousand and one nights. One room succeeded another, each with its lintel of lapis-lazuli and its ivory door; on each doorsill slept a black; a fountain pulsed in each lotus-shaped basin.

One immense room, that had been part of the warehouses, was now transformed with exquisite taste into a studio: daylight entering by a window of colored crystal was softened by turquoise veils; it gave things an aspect aquatic and strange. An ebony screen, pierced in the form of lilies and swans, marked off the space of a choir.

There was little furniture, save for some armchairs and small tables garlanded with mother-of-pearl, now mauve, now pink, according to the light. In the center of the hall, masses of iris lay in a basin carved of blue opaline. I also noted the lemonwood chests, disposed here and there on a little platform. An orchestra hidden behind the screen began a soft *canzone*.

On the platform sat a girl. I know not how to describe her, save by comparison with the rare and precious things she evoked: moonlight, the shivering of willows, pearls, mist floating on the water. Angelic, androgynous, mysterious, without a past, without a country, sprung perhaps from an alien universe . . . I believe she was dressed in mist and azure. I believe . . . At the first glimpse, I fell under an unaccountable spell; I was powerless, turned into an automaton.

I let Nardo go through the necessary motions, unfold the easel and prepare the colors, always keeping behind him where I could see my fair unknown. Nardo, by contrast, was vivaciously selecting his charcoal sticks.

I promise you I did not follow the progress of his work; I was plunged into an abyss of vertiginous sensations, and I saw, I remembered, beings, things, whole sequences of time—strange, magnificent or dreadful—all of which

bore some relation to the adorable creature who sat before me.

Two series of images were blended: first a black gulf, shot through with nebulous gleams, stars, like the pearls of a necklace spilled on velvet—and windings, spirals of flame, emerald and purple explosions (such as, I know now, no artificer can produce). A dazzling light burst through the colored window—and it was the face of a giant globe.

Then, like a traveler who contemplates the valley of the Arno from the summit of the Appenines, I saw another Earth come towards me, with its sharp reliefs, its frosted peaks and its craters of night among the great luminous plateaus; phosphorescent oceans beat upon their shores, and gloomy light chilled the ruins of magnificent cities. And these landscapes at the same time were a song and a music, mounting stairs of silver toward the vast heavens.

"Can you paint that?" asked the girl, addressing herself equally to Nardo and me. I would have pointed out wherein lay her error, but my voice died away on my lips. Nardo was already drawing with his native ease and swiftness, darting a tangle of spidery lines onto the canvas. A glance at his sketch made me turn pale: without exchanging a word with me, he had just copied my visions.

We were so absorbed that we did not hear Messer Perugino en-

ter the studio, then withdraw on tiptoe.

I asked the master's permission to be present at the second sitting, and Perugino, who had just sunk a new arrow into the biceps of Saint Sebastian, looked up in surprise. "Do you really want to?"

"Per Bacco! If not, would I speak of it?"

"Good," he conceded, spreading a bloody highlight across the pectorals of my double, "but don't swear: it sits ill with the expression of a martyr. I grant you that the arrangement of milord Al-Hazreh's lodgings is ingenious, and his ambition to have me paint his wax doll is amusing . . ."

"His—what?"

"His automaton," said the artist. "His demon, queen of the vampires. His giant homunculus." And taking my indignation at its height: "You haven't looked upon her closely, then? It's true that with all the lights dimmed, you might be excused."

Breathless, I could only form the words: "But that girl spoke to us!"

"Really? After all, the thing is possible. Such astonishing engines have been made! In France, it appears, some angels were constructed of gilded wood, with a mechanism so perfect that they walked, shook their wings, and even spoke a compliment, at the coronation of the young queen Ysabeau de

Bavière. And Paracelsus maintains that not only the mandragores, but certain bulbs of the white lily, grown in jars and buried in dung at the full of the moon, with appropriate incantations, give birth to living beings a cubit tall. These sprats, though very devoted to their masters, are of a vicious and malignant humor. Certain alchemists relate that they live on air, like the fish of Cathay, but it is generally conceded that they feed on a blood-jelly. Parenthetically, it would interest me to know how Al-Hazreh procures this, since it is compounded of human blood. . . . At any rate, automaton, homunculus or mandragore, whether your Signorina Nahema belongs to one species or the other, it is certain she is no Christian creature and I shall not paint her! I shall not let Art itself, in my person, be abased!"

"But," I protested again, "what you speak of is impossible, senseless! Nardo, who has painted her, will certify—"

Exasperated, the master interrupted, "Nardo! What a witness! A stripling who never has dared lift his eyes to a living woman! An automaton is just the sort of toy that fascinates children. Well, let Nardo paint her, since he understands her so well, and he can also gild a few tavern and cookshop signboards, to earn sweets for his serving-wench mother!"

This unjust judgment confirmed my suspicions: to wit, that the master was jealous of Nardo's progress.

I went to the second sitting with the firm intention of assuring myself that Signorina Al-Hazreh was no statue of wax. I found the same blue paradise, the same enchantment, and an attentive Nardo, bent over his canvas.

We were hardly settled when a black wench brought the girl an elongated silver lute. Dwarfs served us rose and lemon ices, and poured heavy date wine, cooled with snow, into rainbow-colored murrhines. (I wondered later if some philtre in it had not stirred up my senses.) Nahema played and sang, in a voice of crystal; her melodies spoke of a dead world, once delightful; of stars and glaciers, or of lost souls wandering in search of one another. And as she sang, there appeared to us (I can speak for Nardo as for myself) throngs of dim shadows that invaded the hall, danced along the hangings, wrung their hands, longingly appealed for an impossible joy, while their long hair mingled with the iris in the basin.

We met Al-Hazreh no more; but we breathed the mustiness of his jealousy. Sometimes a curtain moved without a breath of air; something like a giant spider scurried about the dark corners; we sensed a discordant echo . . .

To be sure, no one worried his head about it.

The third day . . .

The fact is that I lived only for those hours: the rest of my life shaded off into somnolence. I was seen no more at banquets, and I avoided Perugia's studio. For long intervals I barely subsisted, like a plant with its roots out of the ground: then, suddenly, I would be plunged into my native humus, or rather into a watery space where all was strength and life. Nardo waited for me on the bank of the Arno, and we went up silently toward the Alley.

The third sitting was devoted, then, to what I shall call "natural magic." Nahema spoke to us of sciences lost to the western world: they had been destroyed by the great incendiaries—Omar had burned the Alexandrian, and in the Ming Library, the Mongols' shaggy little ponies had trampled the precious papyri. Other knowledge lay in the depths, on submerged continents . . .

She told us of beings who had lived in those deep waters, moving about in disk-shaped vessels, or with their heads protected by helmets of crystal. Later she described other creatures to us, rising in the air like smoke above the stubble, gliding like birds on their extended wings, or else (this is too complicated for me) traversing the sidereal ether, solely by virtue of an incredible vitality that over-

leaped sound, light and time itself. "Thus," she said, "energy endures; for proof: the light of a star, dead for millenia, brings us its radiant, living image. The temperol no longer exists: we enter into eternity."

She proved to us that the ancient alchemy was nothing but a pallid reflection of true chemistries, for which the transmutation of elements would be child's play. "Some day," she promised, "men will harness the thunder, the chaos of exploding suns, the light of nearby stars, all at once. Then perhaps they will hold the Secret between their hands. They will create new materials—priceless, extraordinary, resistant as iron or satiny as a baby's skin—and who knows—'

She paused, and Nardo asked if scholars were already imagining such things. Nahema's lips curved, in a smile that belied the sadness in her eyes.

"There are the empirics," she said. "But it is not at all the same." Seeing that we did not understand, she explained: "Those whom you call sorcerers. They manipulate great natural forces blindly: there is the danger." As she spoke, she attentively studied her own hands, their tapering fingers, their delicate modeling. A white flame ran beneath the texture of her skin.

We spoke no further that day. Here falls an incident of which

I am a little ashamed, and which I would put aside if it did not lie so close to my story. I have already told you that, in the blissful consumption in which I lived, I no longer counted the days, nor visited my usual companions; I forgot even my loves. The word is not too strong, for that evening, encountering Mona Chiara Salvati at a turning of the Alley of the Old Jews, under the very porch of Santa Reparata, I did not recognize her.

This pretty banker's widow had been kind to me; she was white and brown, she was approaching a stormy age, and she threw herself upon my neck, petulantly. I lifted her and deposited her carefully on the curbing of a well. She stood there petrified, alarming with her cries some tradesmen issuing from vespers, and a scullion who sat on the sill of a cookshop. Thus I was able to dive into the first street I saw, felicitating myself on being rid of her at such a fair price, and without recalling the ancient adage: "Hell hath no fury like a woman scorned."

At our fourth meeting, Nehema spoke to us of myths and mysteries. Ever and again she returned to the Platonic account which declares that all beings were originally made double. "Your Bible," she added in passing, "confirms that truth in its Elohist version. *'And Elohim created man in*

His own image: male and female He created them.'" These perfect beings who were force and beauty, energy and intuition all at the same time, were nevertheless separated, "just as a woman halves an egg with a knife," and flung solitary into chaos. Ever afterward they wandered, with the indestructible memory of their lost companions, with a desire and anguish which nothing could appease. . .

"Sometimes they find each other," Nahema finished sadly, "but not always with happiness, for they seek an impossibly deep and intimate union; and, chained to unremembering bodies, their souls bruise and wound each other in vain."

"Does it never happen," asked Nardo in his crystalline voice, "that the meeting is happy and the union as perfect as the fusion of two metals? Did Laura not love Petrarch, and Paolo his Francesca da Rimini?"

"Yes," answered Nahema, "but death is there in wait. No true immortality exists for any but a whole being: that is to say, for twin souls, fused into a single body. Moreover, it's by that faculty of fusion, of receptivity, that the elect distinguish one another: that is the sign of perfect lovers."

"I would have liked such a union," said the child, lowering his long eyelashes. Then he painted in silence.

It is time, since the occasion offers, to speak of Nardo's painting. I have said that I considered Perugino an unjust master; small as my knowledge might be in matters of art, I could foretell that we had a great painter in that apprentice. A Botticelli or a Mantegna—who knows? His line was firm without crudity, soft without daintiness, and his knowledge of perspective was exceptional for his age. But this portrait of Nahema was the first in whose presence I had felt that faint chill at the heart, that sacred shiver, which comes from the contemplation of a masterpiece.

The girl appeared at the bottom of the mysterious landscape of peaks and trails of stars which she had suggested to us. Her face, of an inhuman serenity, smiled at some inner vision, reproachless, faultless, hopeless. It was a music of which Nahema formed the principal motif—Nahema . . . or some distant star. Yes, the work was beautiful. But later on, it seems, Nardo did better ones; so it is said.

Have I mentioned that during these reeling and unreeling conversations in the hall of blue magic—platonic dialogues beside which the talk of any woman, even the charming Chiara, was no more than an insipid and vulgar babbling—we sometimes dared to approach the platform? Nardo lay at the girl's feet; she gave me her

dangling hand, and I savored its perfume, its satiny softness and its warmth. She granted us no other liberty.

Sometimes Nahema's glance lay heavy on us; it seemed to me that her eyes cried out, demanded a response. What could I say to her? Yes, truly, I loved her! My most ardent wish was to steal her away from the evil renegade. . . . Once only I spoke the name of Al-Hazreh with hatred in her presence. Her penciled eyebrows rose.

"Do not arouse him," she said. "He has his suspicions. Like Ugolino, he foresees the moment when, with his sons dead of hunger, he must go to meet his Master. Let us not envy the fate of apprentice sorcerers. . . . What, you didn't know that Deodat Lazarelli is one of them?"

She passed a too-perfect hand over a smooth forehead, where neither age nor human afflictions had left any trace, and let it fall "Yes. He is a sorcerer. To the despair of soulless beings—and of wandering souls."

It was the last time that I saw her in Nardo's presence.

The next evening—was it really the next evening? I had lost the notion of time, as I told you. In any case, it was the night before a storm. The city swooned under a ceiling of lead, and over the Ponte Vecchio, the sun went down in a tragic purple. From the old quar-

ters arose a heavy stench of carrion, roses and incense. Uneasiness haunted the Alley of the Old Jews, whose inhabitants had gone to ground; even the servants of Al-Hazreh were nowhere to be seen. On a bridge, at the exact spot where Dante saw Beatrice and fell instantly in love with her, I met milord Perugino, in the midst of his court of students in paint-spattered velvet, sword-hung bravos and courtesans. It was an eternity ago that I had deserted his studio. Doubtless he was just now risen from the banquet table; he was not drunk, but overexcited, and he drew me aside from his noisy group.

"Well then," he began, "what news? How goes your love affair with the wax doll? Guido, Guido, I've always known you were too handsome for a simple cavalier of Florence, and that your gift would play you a bad turn! Is it true, as they say, that yon statue is as wise as the Queen of Sheba, and more seductive than Helen of Troy? Has she really cured an emperor of leprosy, and driven Pope Callixtus Borgia mad? . . . Beware the toils of Hell, my son," he resumed, adopting clerical language; "is she not called Nahema? Well, it's a demon's name, as much as Lilith is!"

"Messer Perugino," I retorted, controlling myself, "it ill becomes a cavalier to hear his lady spoken of in that tone, but you have ever

been as an elder brother to me. I beg you therefore to make an end of these spiteful pleasantries: if not, let us cross steel, and may God be our judge!"

He looked at me, his eyes so wide that the pupils swallowed up the corneas. "So it stands thus!" he cried. "How sorry I am to have put you in their way! But as God is my witness, until this very moment I thought of it just so, as a pleasantry. Well then, Guido dei Pazzi, you are a man of sense and no idler, nor one of the Piagnoni, one of the 'weepers' of San Marco. How you could stray into the toils of a cleverly painted automaton—!"

"She is no machine, but an adorable girl."

"You are truly in love with her?"

"Yes," said I, weighing each word, for the truth was in them: "and to the point, I know she is no wax statue—I see her every day, in Nardo's company. I breathe her perfume, I kiss her hand, she talks with us. Her breath is that of a morning in May . . ."

"Always in Nardo's company?" demanded Perugino, with a malicious air. "Never alone together?"

"You know our habits."

"Nevertheless," said he, "there is one way for you to assure yourself that the idlers of the ghetto lie, that the Genoese and Venetian merchants lie, that the Legate

himself lies! All these persons are persuaded that Master Al-Hazreh, who is the Wandering Jew, Ahasuerus, or the Devil, is displaying before us all an effigy modeled from a substance of which he is the inventor, having used for this end certain solar or other radiations! She moves (I mean the statue) by the aid of an ingenious mechanism—at least, if that marvel be not due simply to the presence of a demon. He did not succeed in producing that creature without divers experiments, of which the resulting homunculi feed on fresh human blood. Numbers of children have disappeared in the neighborhood, and we expect the tribunes of the faith to be seized of a formal complaint, which cannot be long delayed. As for this Nahema, demon or mysterious entity, come from another world by way of the shadows, you have only to read the cabbalists to have her to the fingertips: she reigns over the vampires, leads men to foreswear themselves, to guilty passions, to catastrophes, and to suicides, and marks those whom she leads astray with an infernal star between their eyes!”

“Lies, all of it!”

“In any case, her powers are great. You have but to look at yourself—all Florence is talking of you.”

“Master!”

“There is one single way to prove all these madman’s tales—”

“And that, if you please?” I demanded, white with rage.

“Faith,” said Perugino, laughing, “the damsel likes you, does she not? Take advantage of it. Then you’ll see.”

Evil words are like the bad seed, like the tare that springs up wherever it falls: they sprout, even in a soul full of anger.

I have already told you that the sky was overcast. The violet night blotted out the Campanile, and the Marzocco, the heraldic lion of Florence, furiously roared in its cage. Silent flashes of lightning lit up the clouds. Leaving Perugino, I walked aimlessly; children fled before me and women quickly closed their doors; I was that sort of outcast—the enchanted one, the possessed! Over the Arno, the air was intoxicating as sage wine. Without knowing how, I found myself again in the Alley of the Old Jews.

There was no one in the house of Al-Hazreh: neither in the entry nor along the corridors. All the portals were open; the servants had fled. I stood motionless on the sill, when I heard a groan or a sob—so weak that it might have been the sigh of a breaking lute string. Then a squalling: it sounded like a flock of birds invading the rafters. The noise came from the blue hall, and I had recognized the voice—I rushed toward it.

All the hangings were drawn; a suffocating darkness filled the studio, where a single torch glimmered at the corner of the platform. Its feeble gleam made the shadows impossibly large, and in that liquid dark I saw Nahema standing, white as wax, and Al-Hazreh on his knees. He was pricking her wrist with a stiletto—the sacrificial knife—and the blood fell drop by drop into a goblet. Without sparing time to draw my sword from its sheath, I fought him with my bare hands in the darkness. The curved blade glittered, but I was younger and stronger. . . .

"Don't kill him!" cried Nahema.

The renegade fled. And we were left alone—or almost. With a handkerchief, Nahema made me a tourniquet. Her own hand was no longer bleeding. Then I saw around us the open lemonwood chests; and standing on the floor, crystal flagons a cubit tall, in which a blue phosphorescence floated. Their tops were sealed with membranes, each pierced by an alembic tube.

In each jar wriggled a living creature, monstrously human—a horror.

There was a king, and a queen. A mitred bishop; a condottiere. A Hospitaler, on his horse. A gorgon whose every red lock writhed. What else do I remember? There was even one dressed in scarlet, and provided with a sword no big-

ger than a pin, with which he was attacking the jar—a Satan, sprung from the cogitations of a Doctor Faustus. . . .

All of them squalled and clamored with an incredible arrogance; only a few inches tall, nevertheless they had a damnable reality. And they held out their arms to us, their minuscule lips avid, pursing toward our wounds, toward the alembic tube from which would drop their manna, their red dew—our blood. . . .

I was on the point of knocking over the jars and trampling these tiny monsters underfoot, when the girl seized my wrist and thrust forward a bloodless face, pathetic with anger.

"Stop!" she panted, in a voice unrecognizably harsh. "Why kill these unhappy creatures? It's not their fault if they exist, if they tremble with fear and die of hunger! Al-Hazreh alone is responsible. I offered myself to feed my brothers—the non-humans!"

"No!" I cried, maddened, "I can't believe it! You're not of that race of mandragores! Your blood flows, you are living, I love you!"

"Do you really love me?" she asked hungrily. "Do you alone understand the meaning of that word: love? No, listen, touch me not. Indeed I am no machine, nor any magical root, nor was I hatched from the husks of a white onion. Imagine that all your dreams are true. Better: picture to

yourself that sidereal abyss in which your earth is only an atom. Look: in that black sky, among the pearls of Orion's Belt, there is one that is a dead sun, around which icy globes tirelessly revolve. One of these is my mother world, which once was beauty itself. If you love me, Terran, believe that I am really human—more human than you, for I belong to the same race, only more ancient, born on a planet which no longer exists, save as a cadaver in the void.

"But indeed, death did not come at one stroke. Our species was advanced and powerful; we struggled long to keep up a semblance of life among those craters of ice and those frosty peaks of which you have dreamed. When all was lost, a few survivors dared the supreme adventure: they knew that somewhere in the cosmos other worlds existed, peopled with creatures who resembled themselves, bodies in which they might awaken. They tried to join those far-off mother-worlds. I—

"Only by accident, I was cast away on Earth: it is new, crude, it is unready for these experiences. But Al-Hazreh seized me in the meshes of his mad incantations. . . . He drew me here. . . . No, I should not accuse Al-Hazreh: there must have been a predestination—there can be no effect without a cause; perhaps this globe was a haven. . . . I wonder from my story. Al-Hazreh gave

me this body for a prison. No, it is not of wax (I read your thought), but I am chained in it, and suffering. You say, do you not, that you love me? Even though I am a creature from the stars? . . . You love me—and truly wish to accept me?"

"I love you. It matters little whence you came."

So saying, I took her in my arms, with the headlong passion of my first youth. The lace of my doublet crushed into her delicate bosom; I wanted to squeeze her, bruise her, drown myself in her and be her master. And with all my strength I strained against a thin flame, an enveloping softness that invaded my nerves. It seemed to me that an incredible flood of energy lifted and pierced me, driving the blood back to my heart—and it was such terror, and such delight! We struggled thus, silently, mouth to mouth, until she seemed to melt in my arms, and then—only physical sensations remaining—with a vertiginous, stabbing clarity, I realized that that petal-like skin I caressed, those honeyed lips, the living waves of her hair wherein I was held as in a net, *were not the hair, the lips, the flesh of a human being*. . . . An insurmountable horror overtook me. I thrust away that cosmic foe who was about to subdue me. Or did she herself perhaps break away from my embrace? She flung in my

face: "No. You are not the one I seek. Get out!"

All that night, I wandered through the streets, trying to deal logically with my nightmare. Very well, Al-Hazreh was a sorcerer. He had tried—the folly was current—to create life. To begin with, following the teachings of Albertus Magnus and Paracelsus (I was not completely ignorant!)—from this came the homunculi, fascinating, imperfect monsters. Finally (by what procedure?—"by radiations," Perugino had said), he began to reconstitute living matter and to give it a seductive form. Each time, he had learned that his statue still lacked that divine spark: the soul or the spirit. So he had gone on with his search. Was it Plato, or the Ophites, who told him of the survival in the Cosmos of wandering spirits, seeking new bodies to inhabit?

"*Animula vagula, blandula* . . ." the Emperor Hadrian had said on his death-bed. The patient madness of Al-Hazreh flung itself into the search for these aliens, and he had found Nahema—exiled, lost, irresponsible. . . . I shuddered. Perugino had been right: her admirable body was nothing but inert matter, serving as a prison. And yet she had shuddered and wept in my arms. She was waiting for a miracle: I was not worthy of it.

At dawn I ran aground, ex-

hausted, in the studio of the master, who dressed my wounds and watched over me like a prodigal son.

I understood now that since my first visit to the Alley of the Old Jews, my soul had really been absent, drawn into the limbo where Nahema lived, out of space and time, far from this century and the town called Florence. I knew nothing of the troubles which were shaking the Medicis' throne, nor of the first sermons of the young Savonarola, nor of the first halting steps on our soil, once more free, of that frightful machine from Spain: the Inquisition. My way of life had so altered that my kinsmen were disturbed. The most anxious to intervene, indeed, was Mona Chiara Salviati. That lady had extensive connections, but she resorted simply to her confessor, a novice friar, animated by zeal, who was none other than our old and well-loved Fra Giorgio da Casale.

Yes, that is what I said: the Bludgeon of Sorcerers; he who had lately burned four hundred in a single day. In short, the Grand Inquisitor of Tuscany.

My convalescence was long. My mother had taken me to Fiesole, and watched jealously over my bed. I spent hours lying flat on a terrace covered with climbing vetch. My pretty cousins played on the rebeck or the viol. Summer

came; the vines were heavy with grapes, plundered by drunken thrushes. In the morning mist, the Arno shone like a sword-blade. I experienced a phenomenon well-known to exorcists: withdrawn from the presence of my dear demon, I forgot her, while still keeping her imprint in my flesh.

But there came a day when by hazard a Florentine friend spoke the name of Al-Hazreh in my presence.

"The magician of the Alley of the Old Jews," he explained. "What, you have not heard? It's true, he was arrested the day after Master Perugino gathered you in with that nasty wound. The Inquisition was seized of a complaint, and moved. But the nub of the affair is that the guards could not subdue the sorcerer, because he performed miracles: a fire that burned in the very stone, serpents on the steps of the staircase . . . in short, the whole bagfull. So they locked the doors and shutters, and put sentinels down below. They chanted exorcisms; they burnt a pyre of *Agnus Castus* soaked in aromatics; it poisoned the whole of Florence for three days. Meanwhile shouts and frightful noises could be heard inside the old house. . . . Oh, no—he was alone, his servants had run away. It was a screeching like an immense aviary . . . but he had no birds. Finally all was quiet. Four days later, the guards read

their proclamation and broke down the doors."

"And then?"

"Then he was dead. It seems he had pierced his wrists with fragments of crystal. There were pieces of broken jars around the corpse, which was curled up and all black."

"And that was all?"

"Oh yes—there was also a red, quivering jelly."

"Then it wasn't the Wandering Jew," said my mother, who had approached during the conversation. She crossed herself. "Why do you tell of such horrors? Guido is still so weak!"

So, I thought, Al-Hazreh had died in the attempt to destroy his creatures? Or had they killed him to drink his blood? A recollection lit up the blank spaces of my memory. I stiffened and cried out, "The Jew—didn't he have a daughter, or a ward? What became of her? Speak, in God's name!"

My comrade looked at me, surprised by such vehemence. "I know not," he said.

No one had heard any report of her. . . .

Recovered, I left my house, Florence, and Tuscany, to engage myself, as a *condottiere* must, under many standards. I served under Alviano, "married to the Republic of Venice"; under da Ferro; under the great Vitellozzo Vitelli, the Strategist. I served—

from 1502 to 1507—the Tiara and the Keys, under Monsigneur de Valentinois—and may God pardon me: I would have served under the Devil himself!

The story would be ended if I had not learned, on the first day I returned to Perugino's studio, that he had dismissed Nardo.

"The boy was becoming impossible!" grumbled the master. "He changed from one day to the next; he discovered new laws of perspective! Invented colors, and painted with them! And submarine vessels—and flying machines. . . . The air, according to him, has weight and can hold up solid bodies. . . . Pure folly! How many ounces, sir, in the morning breeze? I showed him the door for one ultimate insolence: he aspired to sign that portrait of Al-Hazreh's!"

"Then the portrait exists?" I demanded fervently.

"Certainly not! I destroyed it: an unspeakable daub. The colors decomposed before they were dry!"

I wished to see Nardo again: it was not easy. I learned that the Duke of Milan, Ludovico Sforza, had taken him under his protection, having regard for his birth, and probably for his talents. He should be leaving for Lombardy; perhaps he was already on the way.

Drawn irresistibly, I wandered into the Alley of the Old Jews. It had just been ravaged by a terrible fire; dogs prowled among the

beams and the calcined debris; a whole section of the warehouses, that which had enclosed the grain-merchant's house, had burned: in a single night, and no one knew the date. Nor the causes of the disaster. No fire smoldered under the cinders. . . .

Then this befell me:

The night came over Florence: soft, cold and blue, as it is at the beginning of autumn. Every lungful of air was laced with a minty coolness. At the corner of a street I made out a familiar silhouette: the black mantle and the painter's beret. I called, and the man turned about. It was Nardo. He had grown taller; his body balanced itself with exquisite grace, and his features seemed to glow. Magnificently dressed, he confirmed that he was in the favor of His Highness. While he spoke, I heard the music of his voice, I followed the gestures of his hands and his fringed eyelids. It was Nardo—and it was not.

"Come and see what I am painting now," he proposed with a sort of gaiety. "I can do so many things, you see! Come."

At the inn where he lodged at the duke's expense, he showed me some ravishing sketches of aerial creatures, of angels and demons equally beautiful, of lunar landscapes, here and there the outline of an unknown monster, or a giant wing. They were no more than studies, gropings, but it was im-

possible to doubt: under his tapering fingers a world was being born. He had visited the stars and the depths. . . . What he had brought back to Earth belonged to another scale of values, to a domain and an art unknown to humankind. The execution was perfection itself. I observed also that through all the sketches, haunting the dreams and work of the artist, drifted the same face, androgynous and angelic, with depthless eyes.

At length, "Nahema!" I cried.

Nardo gazed at me calmly. "Yes," he said. "We part no more. Look here, this is the model of her silver lute which I have reconstructed. I have noted down the tunes of her songs. Here are the

engines which she draws by my hand—I do not understand as yet what purpose they serve, but soon I shall understand. Soon, when the fusion is complete, Guido. For I loved her too, you see. I was ready to give her my being and my life, when her hour had struck. I asked to receive her. She acknowledged me. Since then, she is present everywhere, she lives through me—in me."

His features were stamped with an inhuman serenity.

Another mug of mead, landlord, for the old condottiere!

Ah—Nardo's name comes back to me: he took that of his village: Vinci. He called himself Leonardo da Vinci.

AUTHOR'S NOTE:

For many years Andrea del Verrocchio was da Vinci's master, and many people know of no other. But one day Verrocchio, grown jealous, showed him the door, and for a time Leonardo, not knowing what to do, is said to have frequented "the studios of the most illustrious painters of Florence." The most illustrious of these painters was Perugino, who represents exactly for the dawn of the Renaissance what Leonardo is for its high noon.



What Charles Morris does for a living is neither here nor there; and what happened to him and his wife seemed for a while to be more of the same. . . .

Fireside Talk

by H. F. Ellis

MY NAME IS CHARLES MORRIS, my wife's name is Anne, and what I do for a living is neither here nor there. We live, or used to live, in a house we built ourselves, had built for us that is to say, not very far from London. It's a smallish house, planned for convenience but not oppressively contemporary, and it was built to last rather than just to get its photograph in a semi-glossy magazine.

We were sitting by the fire reading—I was starting a Perry Mason story, I remember, and had got to the point where Paul Drake comes in and drapes himself across the arm of an overstuffed chair, whatever that may be—when I heard a man speaking, almost at my elbow.

He asked himself, "Was this the room they used to call the living-room, or would it have been the drawing room?"

"What's this?" I asked my wife. "A play?"

"I've no idea," she said. "You switched it on."

I hadn't touched either the TV or the wireless and was saying so when a woman's voice, slightly husky and deeper than Anne's, asked "Where did you dig that up? At the Community Library?"

"Somebody must have," Anne said. "Not me."

I put a hand out and checked the wireless switch, then walked over and tested the TV knob. Both were off.

"I've been ferreting about," the man's voice said. "Library, birth and death records, regional history office, all over the place. I wanted to find out all I could about these people."

"What's going on?" my wife said. "That girl's voice was right beside me, just here. It wasn't outside."

I went slowly back to my chair. "So was the man's," I said. "At my elbow, just about."

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We sat and looked at one another, leaning forward a little, with our hands pressed down on the arms of our chairs. Not scared exactly, but tensed up, as one is when hesitating whether to get up and do something about something. But what?

"The house was built about a hundred and twenty years ago," the man said. "Pretty solidly built, too, I should say, to have survived what it had to survive. It's been altered, of course, here and there; but this room is much as it was, and the hall and kitchen, and so on."

"So the way her footsteps go would be—the way she always went?" the woman asked. "To and fro, fetching and carrying. It's funny she can't rest, even now."

"Charles, I don't like this," Anne said. "Can't you—this is *our* house."

"I know," I said. "It's all right, darling. There's probably a—some fool must have planted a tape-recorder on us." But it did not occur to me to start searching. The voices, whatever they were, were not recorded.

"Shove the butter over this way, would you?" the man said, and it was this, the utter banality and matter-of-factness of the remark, that gave me my first real twinge of fear.

"Look here," I cried, loudly and foolishly. "What is *this*? What's going on here?"

Nobody answered. The fire burned cheerfully, the room was brightly lit as we always keep it, my Perry Mason lay open on the carpet where I had laid it down. And after a while the man's voice went casually on. "I saw *him* again this morning," he said. "Quite clearly. Poking about under the stairs, looking for something as usual. He's balder than I had thought."

I started to say something, but when I looked across at Anne it was obvious she wasn't listening. Not to me, that is. She had her head and eyes turned half-left, waiting for the woman's reply.

"I rather like him," the woman said: "His funny clothes and the way he potters about. Did you find out anything about them?"

"Their name was Morris, Charles and Anne Morris," he told her. "Assuming they were the first people to live here, that is, as I think they must have been from his clothes and the way she always seems to have to go to another room for the things she wants and then take them back again. That sort of lunacy didn't last beyond the nineteen-seventies or thereabouts, I'm told."

"Charles!" Anne whispered. "They're talking about *us*."

"I know," I said. "I know. It's—I don't understand what's happening." My own voice was low, too. Somehow it seemed now as if we had to keep in the background, as

if *we* were the intruders in our own house.

"They talk about us as if we were dead," Anne said. She shivered, and I took the hand she stretched out to me and held it.

The woman was laughing, a rich warm laugh, terribly at home and assured and alive in that brightly-lit twentieth-century room. "Poor things!" she said. "What else?"

"Come up to my study, if you've finished, and I'll show you," the man said. "I've got some notes about who they were and what they did and what became of them. Some of it is rather interesting." His voice as he spoke seemed to be further off, nearer the door—our door with its plain solid-oak panel-less face that we were so proud of—and the woman's "All right, darling" was so faint I could hardly hear it. There were no footsteps, no creaking floorboards or sense of stir and movement. Only the room felt empty. I mean literally empty. I had an extraordinary definite unnerving conviction that there was *no* one in it.

"She called him 'darling,'" my wife whispered, and I saw that there were tears in her eyes. Then for a long minute neither of us spoke. I sought desperately for something to say, something sensible, reassuring, down to earth. But nothing came. My book, still open on the floor, caught my eye

and I read a line of it with a kind of numb astonishment. "What's new, Perry?" Paul Drake was asking.

"They talked of us as if we were dead," Anne said again.

"Well, we're not," I said loudly, and I thumped the arm of my chair over and over with my fist. "We're alive. This is real enough. It's solid. I'm real and you're real. It's they—Listen," I said, and I suddenly found that I was shouting, "your hand's not dead, is it? You can feel mine, can't you?"

"Yes," Anne said. "Only . . ."

"Only what?"

"Those people, their voices, they were real too. *They* thought they were alive. They were flesh-and-blood voices, weren't they? Weren't they?"

"It's crazy," I said. "They aren't even born yet. They talked as if we, as if *now* were over a hundred years ago. They seemed to think we were haunting *them*. Of all the . . ."

"You *were* hunting about under the stairs this morning, you know," Anne said.

"Was I?" I said, only half listening. I was busy with my own thoughts, trying desperately to shake off the feeling of unreality, to get control as it were of my own surroundings again.

Anne had picked up the poker and was tapping it lightly against the bars of the grate. "Do you think," she said, "I mean could in-

tangible things feel solid if you yourself were—well, if you weren't alive any more?"

I got up out of my chair. "Darling," I said. "You really mustn't . . ."

"She called *him* 'darling,'" my wife said, and gave a little shiver.

"Sweetheart," I said. "If you are really worried, I'll go outside and have a look. I'll ring somebody up. Let's get the car out. I am not prepared to be a ghost just because something a bit odd, because something we can't for the moment explain, has happened to us. Look, I'll call up the Bensons and see if *they* think they're alive."

But I made no move to go. A small pocket of uneasiness still lodged in my mind, a hardly acknowledged fear of what I might find if I stepped outside the circle of warmth and light that was at least known and familiar, at least half ours. Something different about the hall and stairs, a glimpse beyond the garden gate of towering lighted skyscrapers, the nightmare of walking for ever into a world that was not my world at all. Suppose I rang the Bensons and nobody answered? Or somebody else?

"Switch the wireless on," my wife said, "and see. If they still use it," she added under her breath.

"My *dear* girl!" I said, and switched it on.

You know how long these things

take, when there is something you particularly want to hear. What is it really? Half a minute perhaps, not more. But now the waiting seemed endless, unendurable. To an outsider, there must be something incredible, ludicrous, about such a situation, that two adult, supposedly rational people should wait hand-in-hand for the Light Programme to tell them whether they are alive or dead. But there was nothing funny about it for us. We sat with our eyes upon each other, motionless, saying nothing, while the long, long seconds ticked by. Then the sound came on, and we were right in the middle of Hancock's Half-Hour.

The relief from tension was so great that for a moment I felt quite giddy, and Anne looked as if she might faint. Then we pulled ourselves together and began to talk. Goodness, how we talked. And laughed! We laughed at Hancock uproariously, and at what he said, and at ourselves. We had a drink to celebrate our return to life. I had a brandy, I remember, and Anne had a cointreau, and I kissed her and said "You're alive all right," and we laughed at that. Then Anne sobered down for a while and asked "But what about them? Weren't they real at all? What *was* it, Charles?"

"Perhaps they will be, when their time comes," I said. "I don't know. I don't know what it was. One of those mix-ups with Time,

probably. Past and present and future somehow sliding together momentarily. It can happen, they say. No sooner said than Dunne," I added, spelling the name out to make sure that my wit was not

wasted. And we laughed uproariously, God forgive us, at *that*.

Then the Hancock programme ended, and an announcer said "You have been listening to Scrapbook for 1960."



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Another in the series of new stories from Howard Fast written especially for F&SF—once more demonstrating his compelling narrative magic. . . .

CATO THE MARTIAN

by Howard Fast

THEY SPOKE ONLY ONE LANGUAGE on Mars—which was one of the reasons why Earth languages fascinated them so. Mrs. Erdig had made the study of English her own hobby. English was rather popular, but lately more and more Martians were turning to Chinese; before that, it had been Russian. But Mrs. Erdig held that no other language had the variety of inflection, subtlety and meaning that English possessed.

For example, the word *righteousness*. She mentioned it to her husband tonight.

"I'm telling you, I just cannot understand it," she said. "I mean it eludes me just as I feel I can grasp it. And you know how inadequate one feels with an Earth word that is too elusive."

"I don't know how it is," Mr. Erdig replied absently. His own specialty among Earth languages was Latin—recorded only via the infrequent Vatican broadcasts—

and this tells a good deal about what sort of Martian he was. Perhaps a thousand Martians specialized in Latin; certainly no more.

"Inadequate. It's obvious," his wife repeated.

"Oh? Why?"

"You know. I wish you wouldn't make yourself so obtuse. One expects to feel superior to those savages in there on the third planet. It's provoking to have a word in their language elude you."

"What word?" Mr. Erdig asked.

"You weren't listening at all. *Righteousness*."

"Well, my own English is nothing to crow about, but I seem to remember what *right* means."

"And *righteous* means something else entirely, and it makes no sense whatsoever."

"Have you tried Lqynn's dictionary?" Mr. Erdig asked, his thoughts still wrapped around his own problems.

"Lqynn is a fool!"

"Of course, my dear. You might get through to Judge Grylyg on the Intertator. He is considered an expert on English verbs."

"Oh, you don't even hear me," she cried in despair. "Even you would know that *righteous* is not a verb. I feel like I am talking to the wall."

Mr. Erdig sat up—its equivalent, for his seven limbs were jointed very differently from a human's—and apologized to his wife. Actually he loved her and respected her. "Terribly sorry," he said. "Really, my dear. It's just that there are so many things these days. I get lost in my thoughts—and depressed too."

"I know. I know," she said with immediate tenderness. "There are so many things. I know how it all weighs on you."

"A burden I never asked for."

"I know," she nodded. "How well I know."

"Yes, there are Martians and Martians," Mr. Erdig sighed wearily. "I know some who schemed and bribed and used every trick in the book to get onto the Planetary Council. I didn't. I never wanted it, never thought of it."

"Of course," his wife agreed.

"I even thought of refusing—"

"How could you?" his wife agreed sympathetically. "How could you? No one has ever refused. We would have been pariahs. The children would never hold up their heads again. And it

is an honor, darling—an honor second to none. You are a young man, two hundred and eighty years old, young and in your prime. I know what a burden it is. You must try to carry that burden as lightly as possible and not fight everything you don't agree with."

"Not what I don't agree with," Mr. Erdig said slowly but distinctly, "not at all. What is wrong?"

"Can you be sure something is wrong?"

"This time. Yes, I am sure."

"Cato again, I suppose," Mrs. Erdig nodded.

"The old fool! Why don't they see through him! Why don't they see what a pompous idiot he is!"

"I suppose some do. But he appears to reflect the prevailing sentiment."

"Yes? Well, it seems to me," said Mr. Erdig, "that he created a good deal of what you call the prevailing sentiment. He rose to speak again yesterday, cleared his throat, and cried out, 'Earth must be destroyed!' Just as he has every session these past thirty years. And this time—mind you, my dear—this time he had the gall to repeat it in Latin: '*Earth esse delendam.*' Soon, he will believe that he is Cato."

"I think that is a great tribute to you," Mrs. Erdig told him calmly. "After all, you are the foremost Latin scholar on Mars."

You were the first to call him Cato the Censor—and the name stuck. Now everyone calls him Cato. I shouldn't be surprised if they have all forgotten his real name. You can be proud of your influence."

"That isn't the point at all," Mr. Erdig sighed.

"I only meant to cheer you a bit."

"I know, my dear. I shouldn't be annoyed with you. But the point is that each day they smile less and listen to him even more intently. I can remember quite well when he first began his campaign against Earth, the amused smiles, the clucking and shaking of heads. A good many of us were of the opinion that he was out of his mind, that he needed medical treatment. Then, bit by bit, the attitude changed. Now, they listen seriously—and they agree. Do you know that he plans to put it to a vote tomorrow?"

"Well, if he does, he does, and the council will do what is right. So the best thing for you to do is to get a good night's sleep. Come along with me."

Mr. Erdig rose to follow her. They were in bed, when she said, "I do wish you had chosen English, my dear. Why should *righteous* be so utterly confusing?"

Most of the Planetary Council of Mars were already present when Mr. Erdig arrived and took

his place. As he made his way among the other representatives, he could not fail to notice a certain coolness, a certain restraint in the greetings that followed him. Mrs. Erdig would have held that he was being over-sensitive and that he always had been too sensitive for his own peace of mind; but Mr. Erdig himself labored under no illusions. He prided himself upon his psychological awareness of the Council's mood. All things considered, he was already certain that today was Cato's day.

As he took his place, his friend, Mr. Kyegg, nodded and confirmed his gloomy view of things. "I see you are thinking along the same lines, Erdig," Mr. Kyegg said.

"Yes."

"Well—*que serait, serait*," Mr. Kyegg sighed. "What will be, will be. French. Language spoken by only a handful of people on the European continent, but very elegant."

"I know that France is on the European Continent," Mr. Erdig observed stiffly.

"Of course. Well, old Fllari persuaded me to take lessons with him. Poor chap needs the money."

Mr. Erdig realized that his irritation with Kyegg was increasing, and without cause. Kyegg was a very decent fellow whom Mr. Erdig had known for better than two hundred years. It would be childish to allow a general state of

irritation to separate him from any one of the narrowing circle he could still call his friends.

At moments of stress, like this one, Mr. Erdig would lie back in his seat and gaze at the Council ceiling. It had a soothing effect. Like most Martians, Mr. Erdig had a keen and well-developed sense of aesthetics, and he never tired of the beauties of Martian buildings and landscapes. Indeed, the creation of beauty and the appreciation of beauty were preoccupations of Martian society. Even Mr. Erdig would not have denied the Martian superiority in that direction.

The ceiling of the Council Chamber reproduced the Martian skies at night. Deep, velvety blue-purple, it was as full of stars as a tree in bloom is of blossoms. The silver starlight lit the Council Chamber.

"How beautiful and wise are the things we create and live with!" Mr. Erdig reflected. "How good to be a Martian!" He could afford pity for the poor devils of the third planet. Why couldn't others?

He awoke out of his reverie to the chimes that called the session to order. Now the seats were all filled.

"This is it," said Mr. Erdig's friend, Mr. Kyegg. "Not an empty seat in the house."

The minutes of the previous meeting were read.

"He'll recognize Cato first," Mr. Kyegg nodded.

"That doesn't take much foresight," Mr. Erdig replied sourly, pointing to Cato. Already Cato's arm (or limb or tentacle, depending on your point of view) was up.

The chairman bowed and recognized him.

Cato the Censor had concluded his speeches in the Roman Senate with the injunction that Carthage must be destroyed. Cato the Martian did him one better; he began and finished with the injunction that Earth must be destroyed.

"Earth must be destroyed," Cato the Martian began, and then paused for the ripple of applause to die down.

"Why do I go on, year after year, with what once seemed to so many to be a heartless and blood-thirsty plea? I assure you that the first time my lips formed that phrase, my heart was sick and my bowels turned over in disgust. I am a Martian like all of you; like all of you, I view murder as the ultimate evil, force as the mark of the beast.

"Think—all of you, think of what it cost me to create that phrase and to speak it for the first time in this chamber, so many years ago! Think of how you would have felt! Was it easy then—or any time in all the years since then? Is the roll of a *patriot* ever easy? Yes, I use a word Earth

taught us—*patriot*. A word most meaningful to us now."

"*Le patriotisme est le dernier refuge d'un gredin*," Mr. Kyegg observed caustically. "French. A pithy language."

"English, as a matter of fact," Mr. Erdig corrected him. "*Patriotism is the last refuge of a scoundrel*. Samuel Johnson, I believe. Literary dean and wit in London, two centuries ago." Mr. Erdig felt unpleasant enough to put Mr. Kyegg in his place. "London," he went on, "largest city in England, which is an island a few miles from the European continent."

"Oh, yes," Mr. Kyegg nodded weakly.

"—not only because I love Mars," Cato was saying, "but because I love the entire essence and meaning of life. It is almost half a century since we picked up the first radio signals from the planet Earth. We on Mars had never known the meaning of *war*; it took Earth to teach us that. We had never known what it meant to kill, destroy, to torture. Indeed, when we first began analyze and understand the various languages of Earth, we doubted our own senses, our own analytical abilities. We heard, but at first we refused to believe what we heard. We refused to believe that there could be an entire race of intelligent beings whose existence was dedicated to assault, to murder and thievery and brutality beyond

the imagination of Martians—"

"Never changes a word," muttered Mr. Erdig. "Same speech, over and over."

"He's learned to deliver it very well, don't you think?" Mr. Kyegg said.

"—we would not believe!" Cato cried. "Who could believe such things? We were a race of love and mercy. We tried to rationalize, to explain, to excuse—but when our receivers picked up the first television signals, well, we could not longer rationalize, explain or excuse. What our ears might have doubted, our eyes proved. What our sensibilities refused, fact forced upon us. I don't have to remind you or review what we saw in the course of fifteen Earth years of television transmission. Murder — murder — murder — and violence! Murder and violent death to a point where one could only conclude that this is the dream, the being and the vision of Earth! Man against man, nation against nation, mother against child—and always violence and death—"

"He said he wasn't going to review it," Mr. Erdig murmured.

"It's rather nice to know every word of a speech," said Mr. Kyegg. "Then you don't have to listen with any attention."

But the members of the council were listening with attention as Cato cried,

"And *war*! The word itself did

not exist in our language until we heard it from Earth. War without end—large wars and small wars, until half of their world is a graveyard and their very atmosphere is soaked with hatred!"

"That's a rather nice turn of phrase for Cato, don't you think?" Mr. Kyegg asked his associate. Mr. Erdig did not even deign to answer.

"And then," Cato continued, his voice low and ominous now, "we watched them explode their first atom bomb. On their television, we watched this monstrous weapon exploded again and again as they poisoned their atmosphere and girded themselves for a new war. Ah, well do I remember how calm the philosophers were when this happened. 'Leave them alone,' said our philosophers, 'now they will destroy themselves.' Would they? By all that Mars means to every Martian, I will not put my faith in the philosophers!"

"He means you," said Mr. Kyegg to Mr. Erdig.

"Philosophers!" Cato repeated in contempt. "I know one of them well indeed. In derision, he dubbed me Cato—thinking to parade his Latin scholarship before me. Well, I accept the name. As Cato, I say, Earth must be destroyed! Not because of what Earth has done and continues to do to itself—I agree that is their affair—but because of what, as every Martian now knows, Earth

will inevitably do to us. We watched them send up their first satellites; we did nothing as they sent their missiles probing into space; and now—now—as our astronomers confirm—they have sent an unmanned rocket to the moon!"

"That seals it," Mr. Erdig sighed.

"How long must we wait?" Cato cried. "Must all that we have made of our lovely planet be an atomic wasteland before we act? Are we to do nothing until the first Earth invaders land on Mars? Or do we destroy this blight as firmly and surely as we would wipe out some new and dreadful disease?"

"I say that Earth must be destroyed! Not next month or next year, but now! Earth must be destroyed!"

Cato sat down, not as formerly to a small ripple of applause or to disapproving silence, but now to a storm of assent and approval.

"Silly of me to think of myself as a philosopher," Mr. Erdig reflected as he rose to speak, "but I suppose I am, in a very small way." And then he told the assembled Council members that he would not take too much of their time.

"I am one of those individuals," Mr. Erdig said, "who, even when they cannot hope to win an argument, get some small satisfaction out of placing their thoughts upon

the record. That I do not agree with Cato, you know. I have said so emphatically and on many occasions; but this is the conclusion of a long debate, not the beginning of one.

"I never believed that I should live to see the day when this Council would agree that Earth should be destroyed. But that you are in agreement with Cato seems obvious. Let me only remind you of some of the things you propose to destroy.

"We Martians never paused to consider how fortunate we are in our longevity until we began to listen, as one might say, to Earth—and to watch Earth. We are all old enough to recall the years before the people of Earth discovered the secret of radio and television transmission. Were our lives as rich then as they are now?

"How much has changed in the mere two-score of Earth years that we have listened to them and watched them. Our ancient and beautiful Martian language has become all the richer for the inclusion of hundreds of Earth words. The languages of Earth have become the pastime and delight of millions of Martians. The games of Earth divert us and amuse us—to a point where baseball and tennis and golf seem native and proper among us. You all recall how dead and stagnant our art had become; the art of Earth brought it to life and gave us new

forms, ideas and directions. Our libraries are filled with thousands of books on the subject of Earth, manners and customs and history, and due to their habit on Earth of reading books and verse over the radio, we now have available to us the literary treasures of Earth.

"Where in our lives is the influence of Earth not felt? Our architects have incorporated Earth styles and developments in their buildings. Our doctors have found techniques and methods on Earth that have saved lives here. The symphonies of Earth are heard in our concert halls and the songs of Earth fill the Martian air.

"I have suggested only some of an almost endless list of treasures Earth has given us. And this Earth you propose to destroy. Oh, I cannot refute Cato. He speaks the truth. Earth is still a mystery to us. We have never breathed the air of Earth or trod on the soil of Earth, or seen her mighty cities and green forests at first hand. We see only a shadow of the reality, and this shadow confuses us and frightens us. By Martian terms, Earth people are short-lived. From birth to death is only a moment. How have they done so much in such fragile moments of existence? We really don't know—we don't understand. We see them divided and filled with hate and fear and resentment; we watch them murder and destroy; and we

are puzzled and confused. How can the same people who create so splendidly destroy so casually?

"But is destruction the answer to this problem? There are two and a half thousand million people on Earth, three times the number who inhabit Mars. Can we ever again sleep in peace, dream in peace, if we destroy them?"

Cato's answer to Mr. Erdig was very brief. "Can we ever again sleep in peace, dream in peace if we don't?"

Then Mr. Erdig sat down and knew that it was over.

"It's not as if we were actually doing it ourselves," Mrs. Erdig said to her husband at home that evening.

"The same thing, my dear."

"But as you explain it, here are these two countries, as they call them, the Soviet Union and the United States of America—the two most powerful countries on Earth, armed to the teeth with heaven knows how many atom bombs and just waiting to leap at each other's throats. I know enough Earth history to realize that sooner or later they're bound to touch off a war—even if only through some accident."

"Perhaps."

"And all we will do," Mrs. Erdig said soothingly, "is to hasten that inevitable accident."

"Yes, we have come to that," Mr. Erdig nodded somberly. "War

and cruelty and injustice are Earth words that we have learned—foreign words, nasty words. It would be utterly immoral for us to arm ourselves for war or even to contemplate war. But an accident is something else indeed. We will build a rocket and arm it with an atomic warhead and put it into space so that it will orbit Earth over their poles and come down and explode in the Arizona desert of the United States. At the worst, we destroy a few snakes and cows, so our hands are clean. Minutes after that atom bomb explodes, Earth will begin to destroy itself. Yet we have absolved ourselves—"

"I don't like to hear you talk like that, my dear," Mrs. Erdig protested. "I never heard any other Martian talk like that."

"I am not proud of being a Martian."

"Really!"

"It turns my stomach," said Mr. Erdig.

There was a trace of asperity in Mrs. Erdig's voice. "I don't see how you can be so sure that you are right and everyone else is wrong. Sometimes I feel that you disagree just for the pleasure of disagreeing—or of being disagreeable, if I must say it. It seems to me that every Martian should treasure our security and way of life above all else. And I can't see what is so terribly wrong about hastening something that is bound to happen sooner or later in any

case. If Earth folk were deserving, it would be another matter entirely—"

Mr. Erdig was not listening. Long years of association had taught him that when his wife began this kind of tidal wave of argument and proof, it could go on for a very long time indeed. He closed off her sound and his thoughts ranged, as they did so often, across the green meadows and the white-capped blue seas of Earth. How often he had dreamed of that wilderness of tossing and restless water! How wonderful and terrible it must be! There were no seas on Mars, so even to visualize the oceans of Earth was not easy. But he could not think about the oceans of Earth and not think of the people of Earth, the mighty cities of Earth.

Suddenly, his heart constricted with a pang of knife-like grief. In the old, unspoken language of Earth, which he had come to cherish so much, he whispered,

"Magna civitas, magna solitudo—"

The rocket was built and fitted with an atomic warhead—no difficult task for the technology of Mars. In the churches (their equivalent, that is) of Mars, a prayer was said for the souls of the people of Earth, and then the rocket was launched.

The astronomers watched it and the mathematicians tracked it.

In spite of its somber purpose and awful destiny, the Martians could not refrain from a flush of pride in the skill and efficiency of their scientists, for the rocket crossed over the North Pole of Earth and landed smack in the Arizona desert, not more than five miles away from the chosen target spot.

The air of Mars is thin and clear and millions of Martians have fine telescopes. Millions of them watched the atomic warhead burst and millions of them kept their telescopes trained to Earth, waiting to witness the holocaust of radiation and flame that would signal atomic war among the nations of Earth.

They waited, but what they expected did not come. They were civilized beings, not at all bloodthirsty, but by now they were very much afraid; so some of them waited and watched until the Martian morning made the Martian skies blaze with burning red and violet.

Yet there was no war on Earth.

"I do wonder what could have gone wrong?" Mrs. Erdig said, looking up from the copy of *Vanity Fair*, which she was reading for the second time. She did not actually expect an answer, for her husband had become less and less communicative of late. She was rather surprised when he answered,

"Can't you guess?"

"I don't see why you should sound so superior. No one else can guess. Can you?"

Instead of answering her, he said, "I envy you your knowledge of English—if only to read novelists like Thackeray."

"It is amusing," Mrs. Erdig admitted, "but I never can quite get used to the nightmare of life on Earth."

"I didn't know you regarded it as a nightmare."

"How else could one regard it?"

"I suppose so," Mr. Erdig sighed. "Still—I would have liked to read Ceasar's *Conquest of Gaul*. They have never broadcast it."

"Perhaps they will."

"No. No, they never will. No more broadcasts from Earth. No more television."

"Oh, well—if they don't start that war and wipe themselves out, they're bound to be broadcasting again."

"I wonder," Mr. Erdig said.

The second rocket from Mars exploded its warhead in the wastelands of Siberia. Once again, Martians watched for hours through their telescopes and waited. But Mr. Erdig did not watch. He seemed to have lost interest in the current obsession of Mars, and he devoted most of his time to the study of English, burying himself in his wife's novels and dictionaries and thesaurus. His progress,

as his wife told her neighbors, was absolutely amazing. He already knew the language well enough to carry on a passable conversation.

When the Planetary Council of Mars met and took the decision to aim a rocket at London, Mr. Erdig was not even present. He remained at home and read a book—one of his wife's English transcripts.

As with so many of her husband's recent habits, his truancy was shocking to Mrs. Erdig, and she took it upon herself to lecture him concerning his duties to Mars and Martians—and in particular, his deplorable lack of patriotism. The word was very much in use upon Mars these days.

"I have more important things to do," Mr. Erdig finally replied to her insistence.

"Such as?"

"Reading this book, for instance."

"What book *are* you reading?"

"It's called *Huckleberry Finn*. Written by an American—Mark Twain."

"It's a silly book. I couldn't make head or tale of it."

"Well—"

"And I don't see why it's important."

Mr. Erdig shook his head and went on reading.

And that night, when she turned on the Intertator, the Erdigs learned, along with the rest of Mars, that a rocket had been

launched against the City of London. . . .

After that, a whole month passed before the first atomic warhead, launched from the Earth, exploded upon the surface of Mars. Other warheads followed. And still, there was no war on the Planet Earth.

The Erdigs were fortunate, for they lived in a part of Mars that had still not felt the monstrous, searing impact of a hydrogen bomb. Thus, they were able to maintain at least a semblance of normal life, and within this, Mr. Erdig clung to his habit of reading for an hour or so before bedtime. As Mr. Erdig had the Intertator on almost constantly these days, he had retreated to the Martian equivalent of a man's den. He was sitting there on this particular evening when Mrs. Erdig burst in and informed him that the first fleet of manned space-rockets from Earth had just landed on Mars—the soldiers from Earth were proceeding to conquer Mars, and that there was no opposition possible.

"Very interesting," Mr. Erdig agreed.

"Didn't you hear me?"

"I heard you, my dear," Mr. Erdig said.

"Soldiers—armed soldiers from Earth!"

"Yes, my dear." He went back to

his book, and when Mrs. Erdig saw that for the third time he was reading the nonsense called *Huckleberry Finn*, she turned out of the room in despair. She was preparing to slam the door behind her, when Mr. Erdig said,

"Oh, my dear."

She turned back into the room. "Well—"

"You remember," Mr. Erdig said, just as if soldiers from Earth were not landing on Mars that very moment, "that a while back you were complaining that you couldn't make any sense out of an English word—*righteous*?"

"For heaven's sake!"

"Well, it seemed to puzzle you so—"

"Did you hear a word I said?"

"About the ships from Earth?"

Oh, yes—yes, of course. But here I was reading this book for the third time—it is a most remarkable book—and I came across that word, and it's not obscure at all. Not in the least. A righteous man is pure and wise and good and holy and just—above all, just. And equitable, you might say. Cato the Censor was such a man. Yes—and Cato the Martian, I do believe. Poor Cato—he was fried by one of those hydrogen bombs, wasn't he? A very righteous man—"

Sobbing hysterically, Mrs. Erdig fled from the room. Mr. Erdig sighed and returned to his novel.

The owl and the pussycat went 'into space
In a modified Jupiter C.

They took some lox, and standard clocks
And an ape with a Ph.D.

The owl took a sight on the stars above,
And sang to the guide beam's sound,

"Oh lovely pussy, oh pussy my love,
We should never have left the ground,

The ground,

The ground!

We should never have left the ground."

Pussy said to the owl, "Our atmosphere's foul,

And your singing's upsetting our course.

But let us be wedded and compute where we're headed,

We will send our decision in Morse."

So they rocketed gay, the elliptical way,

To the land where the fungus grows.

And there, as he should, a Martian stood,

On a ring instead of his toes,

His toes,

His toes,

On a ring instead of his toes.

"Will you loan us your ring, if the owl doesn't sing?"

Telepathed back the Martian, "I will."

So they dragged it away, and were married next day,

By some sort of a thing with a gill.

They dined on yams and boneless hams,

While the Martians espied them in mirth.

And hand in hand on the ruddy sand,

Each thumbed his nose at the earth,

The earth,

The earth,

Each thumbed his nose at the earth.

—HILBERT SCHENCK, JR.

There were many ways for a changeling to betray himself, and any man or woman could become a deadly enemy in less time than it took for a cloud to pass over the sun.

THE SWAMP ROAD

by Will Worthington

"NOAH! WAKE UP, YOU FOOL!"

A sharp elbow smashed into his ribs and his eyes opened too quickly. Much too quickly. He grabbed at the brim of his hat and yanked it down sharply, then stole a dim, furtive glance at his neighbor. The other man sat rigidly and stared straight ahead at the pulpit. If he had noticed anything strange, he did not reveal it, and Noah thought silent thanks for this. Then only did he brace himself for shock and pain—it was the Seventh Day and they sat in a sun-blasted circle of stone benches to hear the Preachments—and he opened his underlids. They had to be so careful.

He asked himself once more what chance they had.

He was safe for the present, but what about the girl? He squinted his eyes against the cruel midmorning sun and surveyed as much of the amphitheater as he could without craning his neck or turning his head. Life itself literally depended upon never attracting attention. Besides, it was not prudent for even an ordinary man to be seen scrutinizing the women's half of the meeting place too avidly—not while one of the Elders of the Village was delivering a grim sermon on the eternal theme of Sin and Punishment.

At last he caught a glint of copper-colored hair, peeking out from under a black kerchief—a bright laugh during a dirge—and he knew that it was Laura, his changeling girl. She sat dangerously close to the Pulpit—how like her!—but he saw with great relief that she sat erect, obviously awake and alert.

How special she looked, head high among the Villagers who huddled on the backless stone benches like sad, wing-clipped birds perched on a fence-rail, spiritlessly waiting to be clubbed for the cookpot! But how many among them were also changelings, pre-

tending like themselves to be pious, obedient servants of Jonas, Guardian of the Spring?

How many feigned sleep during the long nights while sounds of rushing and roaring and of high, clear, disembodied voices filled their heads, then pretended full wakefulness during the long, long days in the fields when their muscles screamed and their throats tightened with the thirst that was never quenched? (Water would not be issued again until next morning, and Noah's water-bag was already half-empty.)

Or how many lay on their pallets at night with their faces downward so that others could not study their faces or see the spasmodic gaping of the mouth which seized them at times, or notice any of the swift, frightening night changes, which could occur at any time and which had somehow to be concealed?

Of those who wore their black, flat-brimmed hats low on their brows, how many did so to hide their strange eyes or the widening septa of their noses and the gradual waning of the cartilage? All wore hats at meetings. You couldn't tell.

Did others hoard scraps of suet to rub on their faces in order to relieve the telltale flaking of the skin?

How many examined themselves secretly in cherished shards of silvered glass—those forbidden, magical things left among the broken stones by a people long since gone to their unimaginable Judgement?

Noah stole another glance at his companion of the sharp elbow. It was David, who had been his friend longer than he could remember, but who now looked distant and forbidding. Noah knew without warning his old friend could recoil from him as from a deadly snake, pointing accusingly with two fingers and shouting imprecations and warnings. Any man or woman—save Laura, the only other blighted one known to him—could become a deadly enemy in less time than it took for a cloud to pass over the sun.

There were as many ways for a changeling to betray himself as there were stars in the sky, and what made it worse was not knowing what changes to expect, or when, or why. He did not know what he was or what he was to become.

How many others were damned?

The Guardian Jonas delivered the sermon himself that day, so the villagers were even more apprehensive than usual. There was no coughing or stirring among them. The texts of the sermons never varied importantly, but there was always the promise of denuncia-

tions from the pulpit, especially when the Guardian of the Spring himself chose to speak the Word. Not the most pious and blameless among the villagers could feel entirely secure when the wild-eyed old man began to flail his long arms over the lectern and when his voice began its rise from a lugubrious chant to peaks of screaming hysteria. During almost any passage in the sermon his bony finger might lash out like a lightning bolt to accuse and condemn some unsuspected sinner among the people . . . or a changeling . . . for his sermons were strung on an unbroken thread of righteous anger.

" . . . and they wore bright clothes in the great cities, and the women painted their faces as their sisters in Babylon had done in their last days," intoned Jonas from the pulpit. He was coming to the part about The Flaming Fist of Wrath. " . . . and when they should have toiled on the land and been fruitful, they caroused in their towers. When they should have laid up the golden grain against famine, they wasted. They gave themselves up to gluttony, to pride, to lust unspeakable, and to the craving for that hellish draught which is the father and the mother of yet more terrible thirst. . . ."

He loved to dwell on the matter of thirst, it seemed to Noah. He felt the dry knot in the back of his throat, and for a moment he heard the clear, disembodied voices of his waking dream. (And no water-ration until tomorrow. . . .)

The voice of Jonas took on the labored swinging cadence which sounded like the cries of a gang of men trying to heave some great burden over a wall. It rose and it swelled, and here and there among the people, low voices could now be heard answering "Yes! Yes!"

" . . . And then at last came the reckoning—the day of the Great Punishment . . ." His eyes gleamed when he ground out the word "Punishment" and a glaze of saliva appeared on his lower lip. Even from where he sat, Noah could hear the air whistling through his nostrils.

" . . . and the Flaming Fist of Wrath rose up to the very stars. The cities were returned to the earth and mighty cleansing flames scoured the land of wickedness. But that was only the beginning of the Great Punishment . . ."

"Only the beginning!" moaned someone behind Noah. Jonas paused to let the portent echo in the minds of the people.

" . . . and then was the earth made as it had been in the days before the Flood. The earth was returned to Satan, save that the

Chosen of Heaven were set down in a garden to toil in the earth and be fruitful and to seek again their Salvation; and a rock was cleft and there was Water, and this was the Spring, and the Village with her spring and her fields is the garden. Within lies the hope of Salvation; outside lies desolation—the Kingdom of Darkness. . . .”

It was to the descriptions of the “Outer Darkness” and of hell that Noah always listened most attentively. They told him little, but still he listened and he hoped. Secretly he had never been able to accept the idea that the high fence of stones and rubble which surrounded the Village and the fields served by the Spring was truly the Edge of the World. None knew differently, but still he listened.

“. . . Where the Law is not, there is darkness and chaos. It matters not which road the damned shall choose to follow through this desolation; each is a swamp road, full of pitfalls and deceptions; there is no direction there save the beckoning of temptation; the memory of cool waters shall be in their nostrils, forever and ever, and there shall be none for their lips, for all such false paths lead down to Hell!”

There was a great, low moan from the people, but Noah did not hear it. A half-formed thought suddenly suffused his whole being as though it had been long contained in some ductless vessel in his mind and had just burst. It was a question—no more: If the edge of the Village, the Fence, is the Edge of the World and if there is nothing but arid, lifeless desolation and crumbling death and seething hell beyond, then where do birds come from? Or clouds? *Life and water!*

This thought, this child’s question, would never be more than a pitiful squirming thing, blind and nearly formless, but he resolved to cling to the thought as one would cling to a holy amulet. Total despair endows small thoughts as well as small objects with great magical powers.

Where do the birds and the clouds come from? He could hardly wait to confide this inspiration to Laura, the only one to whom such could be vouchsafed without exciting suspicion or even calling down instant wrath.

The girl still sat perfectly erect on her stone bench beside the other woman, and Noah was greatly relieved. The possibility that she might fall asleep and thus call attention to herself—even close scrutiny of her strange eyes, surely fatal—had been part of his underlying tension. But then he saw that the woman next to her was Huldah, ugliest and most fiercely pious of all the unmarried crones

of the Village, and Huldah was staring directly at Laura, her head turned so that those sitting behind her got the full chilling effect of her beaked profile. Neither woman moved, though it did not seem possible to Noah that Laura could be unaware of the staring of her neighbor. Huldah was a pointer and an accuser, and her feeling for younger women, especially pretty ones, was that of a hawk for a songbird. She had risen to speak out at more than one meeting, and she had smiled grimly at the back of more than one sinner who lurched and staggered weeping from the Village. Noah froze and even the happy half-thought of the moment before was temporarily forgotten.

Now Jonas came to that portion of the sermon where the people were admonished and warned about the real and latent evil within and among even The Chosen:

“. . . there is not one among you who does not bear the seed of evil within his breast; and let him depart by so much as the width of a hair from the Way of Righteousness and the seed shall grow within him and devour his humanity, and he shall become as the ravening beast. . . .

“Deliver us,” moaned someone behind Noah, and there were other such outbursts here and there among the people.

“. . . Look then into your own souls for the seeds of iniquity! Seek out lust. Seek out Gluttony. *Seek out unnatural thirst!* If one among you shall have permitted the vile seed to grow within him and if the mark of the beast be already set upon him, let him be sought out . . . *now*. Let him be sought out and excommunicated from the company of the Righteous. Whether man, woman or child, let the accursed changeling beast be driven into the outer darkness. Let not the vile seed infest the spirit nor the mocker of man defame the Garden! Seek!”

Then came that epoch in which the fears, stirring submerged for seven days, rose closest to the surface of every mind. Jonas held his arms half-raised above the lectern and his eyes swept the congregation. Not one among them could have said how long the silence lasted. Noah, for one, did not breathe at all, but he heard painfully controlled breathing all around him. Then he saw that Huldah no longer stared at Laura but sat slightly hunched and stared straight ahead. He let his breath out with great care because he had discovered long ago that his breathing was not like the others'; he could exhale in a great rush which produced a peculiar sound.

After the epoch of immeasurable time, Jonas lowered his arms to the lectern before him and in a voice so level and natural that he sounded like someone else he said, "Go then, and rest for tomorrow's labors. Go and meditate upon your imperfections and beg forgiveness."

Dizzy with relief, Noah recalled the half-thought about birds and clouds and pondered how he would pass this thought to Laura. It was not an idea, not even a hope, and it would be difficult to put it in words. It was like a bright stone which has no name and no known usefulness, but which nevertheless demands to be picked up and carried in the pocket.

It was customary for the women to file out of the meeting first, and conversation—even the exchange of smiles—was expressly forbidden, but Noah and Laura had always managed somehow to signal their presence to one another. So, they supposed, did other couples. Noah looked for the widest, bluest eyes he could find among the women, or for the blaze of copper-colored hair, for these alone were unmistakable. With their drab dresses and their black shawls the women looked alike as turkey-hens.

Laura walked demurely with the others, her head bent forward in an attitude of modesty and humility. She raised her face and permitted herself the slightest of smiles when she passed the bench where Noah stood. She looked straight into his face when she came abreast of him, but where he should have seen two clear, level blue eyes beneath delicately arched brows, he saw instead two vague spots of milky, translucent membrane. Her underlids were closed.

By the time the sun had begun to set behind the charred mountains to the west, Noah's heart had resumed its normal rhythm. The incident concerning Laura's eyes had been only one of a long series of frightening brushes with disaster, after all. The overriding fact was that nothing had happened; the sphere of the present was still intact. He told himself that if the crone Huldah had noticed any beastly stigmata that could have been pointed out, she certainly would have done so then and there before the Guardian and the whole congregation. No one knew what a changeling was to become, except that in some vague way it was understood that they ceased to be human. But it was Common Knowledge that changelings had double eyelids. Few had actually seen them, but lack of direct evidence has never stood in the path of Common Knowledge.

Noah was unmarried, of course, and had not even the memory of a family; like other males of his age and older, he lived in a long, fieldstone barracks-hall. The single women lived in an identical building not more than thirty paces away, but between the men's area and the women's there was a stone fence with deep ditches on either side. Enterprising couples had been known to cross this barrier under cover of darkness, but the risk was usually considered too great except by the most passionate . . . or the most desperate. Fear of castigation formed the greater barrier between the unmarried men and women, or, as some preferred to call it, conscience. So eager was Noah to meet Laura at the end of the fence that evening that each bite of the evening bread had gone down like a lichen-covered stone, and it seemed to him that the sun was delaying its setting just to spite him. He had no wish to talk to the other men, even to David, whose pallet was next to his own on the floor of the barracks-hall, but the men rarely gave their mouths time for speech at the table anyway.

While orange light was still in the sky, he sat on the ground with his back against the building and pretended to inspect callouses on the bottoms of his feet. Fleeting images of clouds and birds passed through his mind, but he had not yet decided how to frame his thoughts for Laura. He noticed with satisfaction that most of the other men, including David, were deeply involved in an endless game of Stones and Bones—a harmless but apparently absorbing guessing game in which men won and lost colored pebbles and chips of bone. He knew that this game would go on until the players resigned one by one out of sheer weariness. Sometimes they played the game in the light of the moon. He saw other couples laughing and talking back and forth across the fence and the ditches, and for a moment he envied them deeply. They could be almost open about their mutual attraction, whereas everything that he and Laura did or even thought about doing had taken on a furtive, clandestine color. It was part of a much larger hopelessness, so profound that only wild thoughts about birds and clouds could make it tolerable.

When the sun finally dropped behind the charred mountains and he made his way to the far end of the fence, Laura was waiting.

She stood half-hidden behind a twisted Joshua tree whose branches looked as though they would snatch her off the earth at any moment. All he could see clearly was her pale face with the eyes huge and dark now in the dying light. He was certain that

their pupils dilated more quickly and more completely than those of ordinary people. His own probably looked as strange. For some reason, he had not bothered with his usual ritual of studying his face in his sliver of mirror this night, though he had hastily rubbed a bit of mutton grease on his face when he saw that the other men were well absorbed in their game of Stones and Bones.

"Your eyes . . . today . . ." he started to say, but Laura held her finger to her lips.

"Never mind. I know." She said it without any hint of anxiety or self-pity in her voice. "I know," she said again, and it seemed to Noah that there was the faintest note of gaiety in her tone. It made the back of his throat ache in a way that had nothing to do with his continuing thirst. It was not a matter of misunderstanding; he understood this feeling of hers even as another part of his mind told him to be cautious. Nevertheless, he heard himself whisper angrily, "You know what could happen!"

"I know what *will* happen" she corrected.

Suddenly they both lifted their faces and sniffed the night air, and both stiffened. Someone else was nearby. They both began talking then, brightly and disconnectedly as they imagined other couples would talk to each other. They slid into this lighthearted pretense quite automatically now.

"I will speak for you Laura. See if I don't!"

Laura forced a giggle. "You'd be a-scared. When?"

"Soon's my beard grows out and an acre is free. You know."

It was a cruel game, of course, this pretending to talk about the future for the benefit of an eavesdropping stranger. Noah knew and Laura also sensed that his beard would never grow. What was worse, he was already being chided by the other men for his beardlessness, and recently he had taken to pretending to pull out his invisible whiskers with two pieces of slate.

They both knew that there would be no "speaking" for Laura, no acre of land to farm for themselves, no hut in which to live and raise children. Other young people talked about their futures when they were alone or within earshot of others. When Noah and Laura were truly alone they acknowledged only a present—an inconstant *Now* which grew and shrank according to their moods and the portents of the moment.

"We must have at least three sons to do my chores for me," Noah was saying when he saw the intruder peering from behind the ominous Joshua tree. The vulture profile was unmistakably Hul-

dah's. Something of the perilous spark lit in Noah's brain at that moment. Signalling to Laura with his eyes, he said, as heartily as he could, "Evening Huldah. Good Sabbath!"

The crone was incapable of embarrassment, however, though she would not look at either of them. "I don't know, now," she said in the tones of one who looks upon an event and sees ultimate doom in it. "I just don't know about these young people meeting in the dark like this. And on the Sabbath, too." Her words, like her eyes, declined to engage their objects at close range. There was a type of thin-faced, bitter-voiced woman in the village whose invariable reaction to the enjoyment of others was "I don't know," and of these, Huldah was the worst. She was the most dangerous, and yet Laura managed to laugh. She laughed with the laughter of any ordinary young girl whose future is a mosaic of tomorrows too numerous to count.

"Perhaps we'd better say goodnight, then," she said, still giggling, but Noah saw that she turned her face away from Huldah. The grim old woman moved away in search of further things to deplore.

"Tomorrow, then" said Noah, and the word was so strange that he had difficulty pronouncing it. And then Laura was gone, so quickly and so silently that he could almost wonder if she had been there at all.

There had been no time to tell her his thoughts about birds and clouds.

Most of the other men were sleeping when Noah crept into the barracks-hall. They did not sleep quietly, these men, even after a day of comparative idleness. They worked hard for their bread and at night their saved-up weariness came out in the forms of groans, grinding of teeth and even running dialogues in unrecorded languages with the unknowable beings of their dreams. Noah found his pallet on the floor without tripping over a single outstretched leg, but before he lay down he felt his pockets to be sure that his sliver of slivered glass and the lump of suet he had wrapped in a square of dirty cloth were safe. Then he wadded his shirt under his head and stretched out face downwards.

He thought: We are both alive and safe at this moment. Laura was careless about her eyelids and Huldah acted very suspiciously, but nothing happened. No one shouted and pointed with two fingers. We made it for one more whole day! Then he let his mind turn to the birds and the clouds. He heard the rushing and roaring

and the high, clear disembodied voices in his head and all about him, and for the first night in many, many months he slept.

The pure sound lured him deeper into the Dream. It was an old and persistent dream which was stronger than waking reality but which had none of reality's weights and pressures and sharp edges. In the Dream he could fly, but this was perfectly natural: he was endowed with great strength, but it was the strength of clouds which knows no resistance. He soared over softly rounded hills, moss-carpeted and crowned with groves of strange trees whose branches moved like the arms of women, although no wind blew. He flew past the flame-shaped peaks of huge mountains and down, down into bottomless valleys, spilling green life. It was a familiar cosmos which accepted and consented. Here there were no long days and arid immensities, no relentless urgings, no crushing burdens. The spirit, a tiny, dry pellet by day, grew until the vastness of the world of the Dream became the measure of his own being. And there was no thirst . . .

Crash! It was not an elbow in his ribs this time, but a booted foot.

"Wake up Noah! Wake up and answer us!"

He kept his face pressed into his wadded shirt until he could be sure that he was not merely suffering another and quite different kind of dream, and when he assured himself that he was not dreaming, he made a conscious effort to open his eyes in the right way. He sat up on his pallet and saw that he was surrounded by standing figures: David, a foreman named Nemiah, two other men and Huldah. The crone was the first to speak, and it was a bad sound to hear on awakening. Her face was even more horribly twisted with hatred than usual.

This was it; this was the thin edge of that expanding and contracting Now within which he and Laura had lived from day to day. This was the inevitable time they never thought about—never talked about.

"He was the last to see her!" screeched Huldah.

"What did you talk about last night, Noah," said David. His old friend's eyes were level and clear and very sad. Noah could not speak, and it must have occurred to David that he was still dazed with sleep, or that he did not really understand what had happened.

"She's gone, Noah. Gone in the night and took Huldah's water-bag with her, too."

"Up and went, she did," shrieked Huldah, her beak not six inches from his face and her breath washing over him like steam from a compost heap.

Gone? Of course she was gone. Noah had nothing to say; he could remember no time in his life when silence would have been a more fitting answer. Full daylight reached him through the opening near the eaves of the building—he must have so deep in sleep that no one could arouse him—and with the nose-tickling light came full wakefulness, down on his head and shoulders like a cruel burden. How absurdly clear everything seemed!

Gone? Gone without saying good-by to the other women, the Elders, Jonas the Guardian? There was no terror in the moment, because nothing was happening now that had not already been foreseen and pondered and experienced fully a thousand times before in his imagination. The only thing that amazed Noah was the amazement of the people who stood around him.

Laura had not waited to be found out by the women. She had not waited for one of the Elders to denounce her from the pulpit and to decree that she should be dragged from the holy place, stripped of her clothing and flogged out of the Village with besoms of blackberry thorns. Why, didn't every changeling live for the day when he or she would be driven into the wilderness with glad cries of "Out, beast! Go from the sight of the Godly, misbegotten child of Satan!"? How foolish of Laura to have denied herself all this! And her greatest sin, surely, was not having given dear old Huldah the opportunity to point her out with two gnarled fingers and shriek exultant accusations at her before the congregation. Noah felt the dangerous spark kindle somewhere inside him and he felt the warmth of it spread. . .

"You'll have to go before the Elders, Noah. You'll have to go now, you know . . ." said David, edging toward him.

Noah was now looking at the oversized water-bag of the fat foreman named Nemiah. It hung by a slender thong from the wide belt that encircled his overseer's paunch. It was fat and full as Nemiah himself and Noah could see too clearly the beads of cool condensate forming on its smooth skin. Fascinated, he watched one droplet grow like a living gem until it dropped and formed a wet sunburst on the floor. Now Nemiah moved forward.

"How long you been together with that swiney-gal?" rasped Nemiah, using a term for the changeling which not the most ardent of the preaching Elders used.

Noah felt in the pocket of his loose shirt and found the shard of silvered glass.

"Come now, Noah," said David, his voice quavering just perceptibly. Noah felt it in him to pity David. He was so sad and he so obviously hated the whole business. Both men began to converge upon Noah and the other two edged around to cut off his escape. Only Noah himself and Huldah, his self-appointed adversary, stood motionless. Then, suddenly:

"One scratch from this and you will be poisoned. You will be as we are. If I touch you, you will burn in seven years!" Noah had moved very quickly.

All the light in the room flashed from the silvered glass in his hand. It was a thing of no dimensions; gripped between his thumb and fingers, it could have been a broadsword. It moved at the end of his arm like the head of a deadly snake, signalling his readiness to lash out.

The men froze; then Huldah, the closest to Noah, screamed with genuine terror and they all recoiled from him. Noah advanced upon Nemiah and the fat man flattened himself against the wall and mewed like a blind kitten. One slash with the glass splinter freed the pendulous water-bag from his belt. No one tried to stop Noah.

Once past the fence of rubble and stones that surrounded the familiar world of the Village, reason played no part in finding the way—not ordinary human reason, at least. The nostrils of ordinary men could not seek out the mere memory of water, nor set their faces toward horizons they did not know existed. But Noah, without consciously seeking, found the places where water had once carved roads over the earth and built battlements and walls against the encroaching sands. There were places in the desert where copses of twisted, half-alive Joshua trees stood like the skeletons of nameless creatures which had died without falling. There were gullies and draws and canyons down which water must have rushed once upon a forgotten time, but where only the fiery wind now whined and screamed and tore dust from the tortured shapes of stone that stood here and there like cringing giants in the merciless blasts.

Noah had drunk water and puked, drunk and puked, and finally drained the stolen water-bag. Now, wrung dry of all its moisture and left in a drift of powdery desert dust, it was forgotten, and with it the guilt of thirst. Now his body drew upon reserve wells,

hidden and unsuspected among the tubes and hollows of his changing organism.

No demons rose up to challenge him, only an angry little whirlwind now and then, guarding the entrance of a wadi or dancing crazily along a dusty delta flat. He heard no dragons roar, no devilish gibbering or laughter—only the rushing and roaring in his ears, and the silvery note which had run through his old dream.

He must have stumbled and fallen many times. It was not walking so much as a continual falling forward, as in a fitful sleep. There was no pain, only a yearning somehow expressed by the high, pure sound.

Beyond the charred mountains, over dunes like the tops of giant skulls, down the dead rills and rivers and along the flat reaches where the streams had once become lakes but where the ground underfoot was now like smooth chalk.

And still he did not die. Something not human prevailed. The high, clear sound was not merely in his head now, but filled the sky. Through it he thought he could hear the cries of strange birds, but some vestige of sense told him that this could not be. There had been no birds for a long, long time.

At last he found himself wandering in a wilderness of stunted dead trees whose anguished limbs were bleached to the whiteness of bones. The earth underfoot was smooth dry mud broken into shreds like pale grey slate with curled edges. A maddening smell—the memory of water—rose from the cracks, and the memory of water was the path he followed.

He came upon the bones of a man, and he saw where the dying man had sprawled at full length and clawed at the hard earth. The sight was no surprise to him, nor was that of another skeleton lying not far beyond.

These unfortunate ones had waited too long before taking to the Swamp Road that led beyond the charred mountains.

Noah kept going, but he felt something in him running out. It would be good to stop and sleep now, perhaps forever, but the sounds in his head would not let him be. When next he fell, he lowered his underlids and viewed the surrounding dead wilderness in a softer, kinder light.

And then he saw the black shawl caught in the brambles of one of the dead trees, and wonder returned to him: wonder, hope, pain, weariness and thirst. He almost resented anything that could arouse him now, but he forced himself to his feet and he followed.

There was the black shawl and there were the prints of small bare feet, and beyond in the middle distance he could see shreds of grey cloth. There was a trail of them which led among the lifeless white trees to a cleft between two rounded dunes.

And the high, pure sound was real now; all else had been an evil dream. He tore what remained of his drab, grey clothing away from his body and wondered why he had not done so before. Those dusty clinging rags were part of the evil dream that was the past.

When Noah struggled up over the dunes at last, he beheld what some part of him had always known existed. Ancient memories, once formless, now took form, and that form was reality: The Great Blue Mother of the clouds and of the strange white birds which now wheeled and dipped over the combers with disdainful mewing cries.

And the smell in his nostrils was the salty smell of life and death co-mingled and unending, and of measureless water.

The rushing and the roaring was a real sound which rose up and filled the world, and through it, an unbroken thread of some bright metal, came the pure sound, the high, clear voices. They came from a distant ledge of rock where the water erupted in fountains of spume—freely, joyously and incontinently.

Out there on the rocks, he was sure that he saw a white arm waving and a flash of burnished copper hair. If not Laura, then what Laura had become.

No one had to tell Noah—or what Noah had become—to plunge into the white surf, to strike out and down, down beneath the charging blue swell with its burden of sand and kelp and broken shell. This was what his strength was for; he moved at last in a familiar cosmos which accepted and consented. He moved with the strength of clouds which differs from the strength of men or of oxen; it knows no sudden beginnings, no sharp edges. All motion was graceful.

Now he saw the green valleys where the branches of strange trees moved like the arms of women and where strange flowers flicked their tongues at motes of living light.

The Pure Voices had called him home at last.



Mrs. Agate writes: "This is the first story I have ever sold—and my 6-year-old son Paul should have some credit, because he told me all about Slammy in the first place." To which we say: "You there, Paul—keep talking!"

SLAMMY AND THE BONNEYGOTT

by Mrs. Agate

ACTUALLY IT WASN'T SOLLY'S Crime Wave at all, but Slammy's. However, Solly was the first to notice what Slammy and the Bonneygott were doing. When it was all over and Slammy and the Bonneygott had vanished, Solly said, "At least a hundred people, including myself, saw them and never realized what they were!"

If anyone was responsible for the crime wave, it was Slammy's Uncle Toorash, who gave him the nine hundred and twenty-eight sets of Tinker Toys—Master size.

"I'm telling you, Toorash, you're insane," said Slammy's mother. "Four or five sets, maybe, though one ought to do nicely; but nine hundred and twenty-eight!"

"Now, now, Yllivni, the child has to have something to *do* with," and he kissed Slammy's mother where her pretty dark eyebrows puckered together.

"But what if he invents something that goes through the Barrier?" she asked worriedly.

"Oh, Barrier, Schmarrier!" exclaimed Toorash. "What would he invent out of Tinker Toys that would go through the Barrier?" Uncle Toorash laughed heartily, and all the clocks in the house began running backwards.

That very afternoon Slammy took an empty cereal box and two pie plates and invented a Hussler. Then he Hussled all the Tinker Toys over to Uncle Toorash's garage, made a space machine and went right straight through the Barrier. Not only that, but he took his Uncle Toorash's Bonneygott with him.

The Barrier went BANG! when Slammy hit it, and caused a brief but severe electrical storm with hailstones over Halloran street where Slammy came down in Herman Pohl's back yard.

Solly Aronsen, about to step off his porch when the first hailstones struck, went back into the house to put on his raincoat. When he got back to the porch,

he found the hailstones melting in the sun, which was beaming brightly. He took off his raincoat, threw it on the porch swing, and set out for work.

Solly lived about four houses up the street from Herman—three and an empty lot, to be exact (the empty lot is important). The empty lot was owned by Herman Pohl's father, and it was next to the one Pohls' house stood on. Back about where the Pohls' side door was, an arborvitae hedge stretched across the empty lot, shutting off the back part of it. The hedge was at least nine feet tall (which is also important). In front of the hedge were a couple of beds of rose bushes and the kind of grass described by the seed companies as Luxurious and Velvety Turf; behind it was a sycamore tree with a tree house in it, a very large sand box, a swing (attached to the tree) and more grass—described by the seed company as Utility.

Picture to yourself, then, a morning in early summer, the beginning of a hot day. The maple trees along Halloran street are in full leaf. The lawns, wet from the brief storm, giving off damp green smells, and the asphalt already beginning to soften and to spice the air with its aroma. A time of day and the kind of a day to delight the eye, nose and soul of the city dweller.

That it did not thus impress

itself upon Solly Aronsen was due to the fact that he was in a hurry. Solly was late to work, and he knew that the City Editor would raise hell. Solly had been late twice before that same week. Both times he had worked most of the preceding night, but that was not taken into account by the Editor, who was in love with the paper and was convinced that all proper newspapermen under him were in love with it too.

As a matter of fact, Solly *was* in love with the paper, but on this particular morning he had to get an interview from the wealthy and rarified Mrs. Pier Lindstrom III, and couldn't make up his mind what would be best to wear. The hailstorm had used up his last small margin of time. Consequently, Solly was hurrying along at a brisk but discreet pace, one designed to get him to the newspaper office in the quickest possible time while not getting him hot enough to dampen and crumple his shirt, when he heard a swoosh and a bump behind the Pohls' hedge. He turned his head briefly, to see a cloud of dense steam rising from behind the hedge, to join what looked like a vapor trail coming down from high in the sky.

He paused, torn between curiosity and duty. Then he heard Herman Pohl's voice.

"Gee," said Herman, "will ya look at THAT!"

"Kid stuff," thought Solly, and hustled off, thus missing his only chance to see Slammy's space machine.

It is pleasant to report that Solly's sartorial splendor was so acceptable to Mrs. Pier Lindstrom III that she gave him the longest, most minutely detailed, and magnificently tedious interview that she had ever granted to any reporter. The City Editor was so impressed that he forgave Solly for being late, raised his pay and printed the whole thing verbatim, along with an effusion on Mrs. Pier Lindstrom III's civic virtue, grace and beauty, and a picture of Mrs. Lindstrom taken twenty years before.

On the whole Solly was, perhaps, better off in having hurried away to his interview than he would have been had he stayed to see the space machine. Who in the world would have believed him? The thing was made of Tinker Toys.

As it was, Herman Pohl, Susie Miles, Debby Nassett and Willie Shay were the only ones who saw it, and everyone was convinced that they had made it up.

Well, then, there we were on a nice warm morning in Herman Pohl's back yard. Herman and Willie had divided the sand box roughly into two thirds and one third with a fence of discarded Lincoln Logs. The boys were

making "Indian forts" in the two thirds part, and Debbie and Susie were making sand cakes with the remainder. The girls didn't protest the seeming inequality because everyone knows that it takes lots more room to make Indian forts than it does to make sand cakes.

Debby had just completed a perfectly beautiful three layer creation decorated with small white pebbles and watermelon seeds when they heard the swoosh and bump that had momentarily arrested Solly's progress. When the steam had cleared away a little, Herman said, "Gee, will ya *look* at THAT!"

THAT was a sort of squarish, triangularish, roundish, funny looking thing made out of thousands of tightly massed Tinker Toy spools and rods. The steam dissipated more and a small boy stepped out. He had on a long blue coat that came down to the ground. The coat was buttoned tightly with eighty-five small pearl buttons. All over the coat front, from the hem to the collar nearly, there were pockets neatly closed with buttoned-down pocket flaps. Some of them bulged and some of them didn't.

On his head there was a space helmet. It was made out of an aluminum colander—the kind that has three feet and two loop-shaped handles. The handles came down over his ears, and the

feet stuck up through a large plastic bag which covered the rest of his face and was secured around his neck with a piece of elastic.

Once on the ground, he opened a pocket and took out a thin sheet of metal foil. He watched it intently while it turned a deep shimmering blue. When it had done so, he crumpled it up and threw it into the grass; then he took off the helmet and tossed it into the space machine. He turned out to be red-haired, blue-eyed and covered with freckles.

"Hi," he said, "I'm Slammy."

"Hi," said Herman, "that's a neat space machine—you make it?" Herman knew right away what it was, of course; he was *seven* and could read. Lots of the comic books had stuff in them about space machines.

"Yeah," said Slammy. "I made her myself."

"Golly," said Willie, "does she really fly?" He went up to the machine and touched it gingerly.

"Oh sure," said Slammy, "How do you think I got here? Um, where is this place?"

"Halloran Street," said Herman. "You from around here?"

"Nope," said Slammy. "Broonng."

"Where?" asked Herman.

"Broonng," said Slammy.

"I guess you don't go to our school then," said Willie.

"No," said Slammy. There was a scratching, scrabbling sound,

and an animal got out of the machine. It was a largish shaggy kind of creature with flaming orange hair, deep blue-green eyes and a long slender muzzle.

"Is that your dog?" asked Debby.

"No," said Slammy, "that's a Bonneygott."

"What's that?" asked Debby.

"Well," said Slammy, "he's a sort of—he kind of—well, he lays eggs."

The children broke into gales of laughter. "*Chickens* lay eggs, and birds," they said. "Not dogs!"

"But he isn't," said Slammy, "and he does. I haven't got any now, but when he lays some more I'll give you some."

"I wonder," said Herman, changing the subject, "I wonder—could we see it fly once?"

"Sure," said Slammy, and climbed back into the machine, taking the Bonneygott with him.

The machine gave a few little puffs of steam and rose straight up about twelve feet and hovered there, giving out a pleasant humming sound with rapidly oscillating variables. It caused all the radios for six blocks around, both AM and FM, whether they were turned on or not, to emit a piercing whistle, and it blew out nine television sets to boot.

It was clearly visible above Pohls' hedge at this point, and Mrs. Mulhauser, who lived across the street from Pohls' and sta-

tioned herself on her porch early every morning so as not to miss anything, would surely have seen it, but she was at the same time listening to "Breakfast with Alicia" on her radio, and when the piercing whistle started to come out of it, she bent down to twiddle the knobs, to tap it on the top, and finally to give it a crashing rap with a rolled-up magazine. At that point, Slammy lowered the machine to the grass again, and "Breakfast with Alicia" began to come out of Mrs. Mulhauser's radio again and she settled back to observe the passing scene on Halloran street, never knowing that she had missed seeing a genuine, if somewhat odd, space machine.

After that, Slammy got out again and came over and sat on the sand box seat. He scrooched a bit, until Susie asked, "You sittin' on a stone or somepin'?"

"No," said Slammy hastily. He was actually sitting on his tail, which was perfectly elegant and had a purple light on the end of it, but he didn't think that he ought to mention it to these children since they so clearly didn't have any of their own.

"How does your space machine run?" asked Willie.

"Oh, with rubber bands and string, and—you know—" said Slammy. "My mother doesn't like me to make space machines," Slammy said, in a burst of confi-

dence. "She says that it uses up the rubber bands something terrible."

He looked over the sand cakes and said, "Your cakes look good; kin I have one?"

"Sure," said Susie, and handed him one. It was made in one of those little pans that frozen pies come in, and the top of it was covered with pine needles which had been carefully saved since the previous Christmas just in order to use them in sand box cooking. A small seashell embellished the middle of this particular cake.

Slammy took the cake with a polite thank you and ate it, pan and all. "Good," he said, "a little more crunchy than my mother makes, and your bottom crust is pretty chewy, but those green things are really keen. What are they anyway?"

"Pine needles," said Susie faintly. She was absolutely astonished and fascinated.

"Mmmm," said Slammy, exploring among his teeth with his tongue. "Kin I have another?"

Dumbly Susie nodded, and Slammy chose a pretty little cookie which had been laid down on a base of clam shell and topped with somewhat coarser pebbles carefully sifted out of the sand by Debby and further embellished with a whole daisy in the center. Slammy crunched this down and said, "Say, you girls are swell cooks." Then he turned to the

boys and asked, "Don't you fellows ever eat any of these cookies?"

Willie and Herman shook their heads. "You can't eat 'em," said Willie, "they'll make you sick."

"They will not neither," said Slammy, "My mother makes cookies just like these, and I eat 'em all the time. Kin I have another with those green things on top?"

"No," said Susie, and hastily swept the cakes into the sandbox.

At this point Herman's mother came to the back door and called. "Herman—oh HERman! Time for lunch!" The end of the hedge shielded the space machine from Herman's mother, so she didn't see it either.

The children all left at once. "G'bye," they yelled to Slammy.

Left alone, Slammy pensively stirred up a dish of sand and water and a few pine needles and a daisy or two and ate it. He was thinking deeply. In the first place, he had begun to wonder if it was so wise to set out alone in his space machine without telling his mother where he was going. In the next place, now that he had got here, he began to wonder whether he should have brought the Bonneygott with him. It was all very well for Slammy; *he* could manage; but if you had a Bonneygott you had to have gold. Now where would you get gold here?

He had forgotten to ask, and now the children had all gone away. Well, there was nothing for it but to take the Bonneygott and go look for some.

So he got back into the space machine and turned on the Feriggeder. The space machine promptly disappeared. The Feriggeder caused a thunderous burst of static to come out of all the radios in the neighborhood, including Mrs. Mulhauser's, which caused her to enter her house and call up the radio station to complain about it. (She had brought out a sandwich and a glass of milk to eat on the porch. It was so pleasant in hot weather, and besides, you didn't miss anything that way.) So she entirely missed seeing Slammy and the Bonneygott go down Halloran Street to the corner of Clay.

On this corner a lady was waiting for the bus, and Slammy went up to her and said politely, "I wonder if you could tell me where I could find some gold?"

"Gold?" laughed the lady, noticing his odd costume. "Oh, you're playing pirates or something, aren't you? Well, I'm afraid that the only gold is downtown in the jewelry stores." She waved her hand down Clay Street.

"Thank you," said Slammy, and turned to go the way she had pointed. She was not entirely right about all the gold being downtown, however. She herself

had on two rings which were made of gold. The Bonneygott quietly extruded his long ribbon-like tongue and licked the lady's hand. Her rings promptly disappeared, and the diamond in one of them fell to the sidewalk.

"Well," she said, "what a friendly doggie you have!"

"Yes'm," said Slammy, and he and the Bonneygott went rapidly down Clay Street.

The lady noticed that Slammy went very fast without seeming to run. As he stepped up on the curb, which was unusually high, she was sure that in just that moment she saw not two, but three neat little feet.

"But that's impossible," she told herself.

As a matter of fact, it wasn't impossible at all; Slammy really did have three feet. Hardly anyone ever noticed that because of his long coat.

That afternoon and early evening, Slammy and the Bonneygott pillaged nineteen jewelry and department store windows of all the gold they had displayed, and no one was the wiser. Dozens of people saw them as they loitered along together, in the manner of boys and dogs whether on Broonng or in Hesslerville. From store to store they went, pressing their noses to the glass—the Bonneygott also pressing his tongue to the glass, dissolving a neat little hole, whereupon he unreeled

more of it and swept the insides of the window clean. Whatever was solid gold vanished entirely, whatever was plated or gold-washed lost that plating or washing in a twinkling. The Bonneygott usually finished up by licking off the gold leaf lettering on the window, if any. This is what he was doing when Solly Aronsen stopped at Hirschorn's, Hesslerville's most opulent jeweler, to pick up his watch, which was being repaired.

"Hey!" yelled Solly, when he saw the gold leaf being wiped off the door by the Bonneygott's tongue.

Slammy and the Bonneygott scooted like a streak. Solly started off in pursuit, but almost at once he trod on something round and hard and went crashing to the pavement. By the time he had struggled to his feet, Slammy and the Bonneygott were gone. So was the object over which Solly had come a cropper, it having rolled down a nearby sewer. It is a great pity that he didn't see what he had stumbled on, for it would have explained a good many things later on . . .

He turned to re-enter the store, and then he saw the plundered window. Quickly he assessed the neat small hole, the empty ring tray with whatever stones the rings had been set with spilled over the velvet, the erstwhile golden bracelet reduced to its leaden

underpinnings, the gold lettering "Hirschorn's" shortened to "orns".

Solly hobbled to the nearest phone, called his mother and told her he didn't know when he'd be home. He was a newspaperman to the core. Battered, supperless, and with a hole in the knee of the suit that had so impressed Mrs. Pier Lindstrom III, he went limping from store to store.

There were three extra editions before midnight. All of them screaming "SMALL BOY IN LONG BLUE COAT SOUGHT IN DARING THEFTS OF GOLD," "BOY IN BLUE COAT STILL AT LARGE, SAID TO HAVE BEEN ACCOMPANIED BY DOG."

Slammy, who had gotten lost, was seen by policemen three times. The first time, he scooted around the corner and lost himself in the crowd; the next time he took a Zareberger out of one of his pockets, and when he was through Zarebergering there were four identical Slammys with four identical Bonneygotts. The policeman, unable to choose which one to grab, stood frozen with astonishment until all of them were gone, and then reported this from a call box in so hoarse and disjointed a fashion that he was unjustly suspected of drinking while on duty.

The last time he was seen, Slammy took out his pocket Ferigeder and vanished.

At last about dawn Slammy found his way back to Herman Pohl's back yard. It had been a hot night and an exciting one. Solly had been on the radio with the police commissioner, and several noted scientists had been hauled out of bed to explain how anyone could remove the plating so completely without moving the plated objects.

It was indeed a memorable night, soon to be rendered even more memorable, because just at the moment when the skim-milk blue dawn begins to turn rosy gold, there was a great supersonic cracking in the sky, and a piercing whistle. Fine china and glassware broke and plaster fell down for miles around.

Slammy paused in a note that he was writing, and signed it "Slammy." Then he hoisted the Bonneygott into the space machine, hastily twirled up his rubber bands, tightened the pieces of string and turned the "you know" on full and rose into the sky with a resounding SWOOOOOSH. Slammy had recognized his father's whistle, and *no* mistake!

When the children returned to the sandbox later that day, they found a long narrow box on the seat. With it was a note that said, "Dear Susie, Thanks for the best cookies I ever ate. Slammy."

And inside the box, all burnished and gleaming, lay twelve solid gold Bonneygott eggs.

The weather was atrocious on Fishbein Two, and the natives unsociable . . . but the rigors did not appear to be severe, considering the rich rewards to be gained.

THE SIXTH SEASON

by Avram Davidson

CARVILLE'S FLAGSHIP MUST have gotten clear past the last system before The Coalsack; that was obvious, for the small ten-jet flagship gig could never have gotten as far as it did otherwise.

("The *Marie Celeste*," muttered the antiquarians. No one listened, disappearances were too common to spend much time on.)

They asked themselves what of the main vessels, but there was nothing in the gig itself—no living person, nor any dead one for that matter—to give any information about the fate of the 16-G, the 18-G, or the 32-L. Except for the regulation stores and three small objects, the gig was empty.

The three items (three of the same sort, that is: the originals were on Earth, in a locked case) stood on the table in headquarters hut. Hyatt looked at them without favor. "If Carville had to vanish, why," he asked, "couldn't he do a clean job of it, at least?"

The calendar-clock gave a little ping, the 1 in the right-hand space

in the slot trembled, slid up out of sight, was replaced by a 2.

"Day 12," said Leiser, brightly. The hour-gauge stayed blank, numbers crawled around the spindle showing seconds. Leiser always made the obvious comment; when the photocells turned the tubes on, Leiser would remark, "Let there be light!" Always, always, *always*. Now, his duty done (for certainly no one would have noticed the end of another twenty-four hour period unless Leiser had pointed it out: no one, that is, except Hyatt, Koley, and Macklin, the other members of the expedition), the biochemist turned his attention to the sherry-colored fluid dripping slowly through the filter. Muttering something about viscosity, he made a minute adjustment to his equipment.

Once again Hyatt looked at the three things on the table, the things almost exactly like those found in the gig which had been found in The Coalsack—the bifurcated root, the lump of gummy

brown sap, the bottle of (as it was promptly named) Carville's Fluid. The original liquid was darker, the Second Expedition having had only a regulation still with it. The one which Leiser now brooded over had been made especially for the purpose, and produced a fluid with fewer impurities. (Just what those impurities might be like—and be good for—was a matter which took much of his time.)

There was little doubt where the three things had come from: Carville had not been scheduled to stop at any new place, for one thing. And the root had the characteristic blonde nap which appeared on all the floral specimens the First Expedition had brought back from its brief visit ten years earlier.

"He either should have vanished completely—gig and all—or brought the fleet back intact," Hyatt went on. "In either case, we wouldn't be here, because it's a certainty a third trip would've been made up of his men."

Leiser paused, pipette in hand. "Whose men, George?" he asked.

Hyatt gave him a sour look. "The Panchen Lama's," he said. Leiser nodded, then he started to frown, then his face cleared.

"Oh, the *Panchen* Lama's!" he said. "For a minute I thought you'd said the *Dalai Lama's*, George." He emptied a drop from the pipette into a little dish, proceeded to do things to it.

Hyatt swore. Then he went into the next room, the center section of headquarters hut. Koley was cutting roots into three parts and adding each part to a different heap. Trunks went in one pile, the short legs in a second, the long ones in a third. Later, he would put each pile through the grinder, then the blender. Next step was the still, followed by a battery of tests designed to show up differences. The differences, if any, were minute—but Koley had a lot of tests—and a lot of time.

They all had a lot of time. Two hundred times twenty-four hours minus twelve times twenty-four hours.

"Hello, all you Gentleman Adventurers," Hyatt said. The botanist looked up, smiled, looked down again. *K'ch'ch'k'ch't*, went the saw-edged knife. Macklin waved a hand, lazily. His book, perched on his stomach, rose and fell to the slow rhythm of his breathing.

"Studying irregular native verbs, Mack?" Hyatt asked.

Mack grunted. "Are there any other kinds?" he asked. "Or, for that matter—are there any verbs? It wouldn't surprise me if the natives communicate by wiggling their ears, and these noises they give out have no more meaning than those of deaf-mutes . . . What about you, George? You're tabbed for Languages, as well as Logistics and Records: Why don't you have a try at the local Vola-

pük? Don't you feel the challenge of it?"

Hyatt stumbled over a box on the cluttered floor, said several words, of which only two—"the challenge"—were in English.

Koley paused in sweeping up a tiny heap of sawdust, which he would put in a tiny envelope with an identifying label on it. "Isn't that the Vegan version of 'son-of-a-bitch'?" he asked.

Macklin heaved himself up into a semi-sitting position. "To be precise—or as precise as one can be, considering—it is the Vegan for 'hermaphrodite - illegitimately - begotten - during - its - mother's-moulting - period - by - a - slave-suffering - from - venereal - encephalitis.'"

The botanist whistled. "Seems comprehensive enough," he said, picking up a tiny envelope. "The more taboos a culture has, the richer its obscenity."

The linguist nodded. "Oh, Vegan is expressive, all right, though terse . . . No, George: this is one of my own books. Listen." He found his place, began to read. "'So-called "magic" can say to so-called "science": "Where wast thou when I laid the foundations of the Earth? Declare it, if thou hast understanding!" And who art thou to say to Nature, "Thus far shalt come, and no farther, and here shall thy proud waves be stayed?"'

"I'll cap your book's quotation

with another," Hyatt said. "'Who do you have to be?'"

The door at the far end of the hut began to reverberate. Hyatt repeated his Vegan curse, yelled, "Okay—I'm coming—*T'lah-k'ch*—*oh'h'rr-um*—knock it off, gah-damn it—*t'lah* . . ." His voice subsided as he loped off towards the door, but the banging continued, as it always did, until he opened the door.

The door-kicking was followed, as usual, by the sound of stomping. It may have been social, but it also served the function of getting all the snow shaken off the robe between the door and the central room. One last *thump-thump* and the visitor entered, and flung his robe on the floor, seating himself on it. He was tall, dark and warty, and smelled like a roomful of ill-trained cats, but in his hand he held a bundle of Carville's Roots, so—

"He ain't no rose, don't smell him, trade with him," said Macklin, seeing a familiar expression settle on Hyatt's face; for local protocol seemed to require the purchaser's holding one end of the bundle while the seller held the other.

"Damn Carville, anyway," said Hyatt, opening the box of knives with his free hand.

"Thou shalt not curse the dead,'" murmured Koley, beginning to weigh the few whole roots left on his table. "Anyway, he

came just in time, we're about fresh out."

Hyatt began to spread knives on the robe.

Macklin said, "And furthermore—as you seem to forget mighty often—the lives you are helping to prolong may include your own." And he saw, by the latest expression on Hyatt's face, that he *had* forgotten.

For there it was: Whatever else the second planet of Fisher's Binary (called, by those in the know, "Fishbein Two") might produce, Earth and its colonies were interested only in Carville's Fluid. And in that, only because it seemed to offer a perfect medium for the administration and retention of gerontium. Rats, mice, guinea-pigs, Vegan tharses, and those curious creatures from the Cornwall System which British discoverers had named "golliwogs"—all, without exception, had had their lives prolonged, in full vigor, by periods ranging up to 35% beyond the norm, by gerontium. It was not precisely a new discovery. But larger living things, beings with slower metabolisms—men, for instance—had been helped not at all by gerontium. The human body would not retain it long enough for it to be of use.

Until Carville's Fluid came on the scene.

A small escape gig, lying inert in the center of The Coalsack, its hull-lights on, its emergency signal

still sending, and empty absolutely empty, except for regulation stores—and three small objects: a bifurcated root with an odd blonde nap, a gummy lump of an unknown substance, and a small vial of brown fluid.

"You're right, Mack—of course you're right," Hyatt said. "Gentlemen Adventurers, I beg your pardons." He began to count the roots. "Hey, these are small," he said to the native. The native gestured towards the knives with his free hand, gurgled something. "Small—" Hyatt indicated with his fingers how small they were, measured off a distance, frowned, shook his head. "Hey, Koley, toss me one of those there. Thanks."

The native, after being shown repeatedly that his latest batch were visibly smaller than the others, blew out his lips and began to talk. He picked up a knife, gestured, gurgled.

"I *think*," said Macklin, "he may be saying, 'Small roots? So, small knives.'"

"We haven't got any small knives," Hyatt exclaimed. "The Fisher Expedition Reports just said they liked *knives*. How in the Hell —"

Softly, softly, Macklin said, "Take it easier, George. If I may coin a phrase, you'll live longer."

The rate of exchange was finally settled at two small roots for one knife. The knives fastened up with the same piece of braided grass

that had bound the roots, the native took a leisurely look around the room, and then a large bite out of one of Macklin's blankets. He masticated it thoughtfully for a long, silent moment, then spat it out. The linguist sighed, relieved.

"Goodie, he doesn't like it. Insulation, heating, or not, with these blizzards raging outside, I don't feel I care to part with more than a mouthful of my blanket."

The native held up a moist scrap, emitted a liquid syllable.

"I should venture that means 'What?'," Macklin said. "I'd write it down—if there existed a phonetic system capable . . . Well, since it seems to be time for the language lesson—" Grunting, he pushed himself up from his bed, took out the recorder, inserted a cartridge. "Then he repeated an approximation of the native's word. 'Blanket,' he said. 'Blanket.'"

"*Brrwahng-airw . . .*"

Koley began to weigh the new batch of roots. "The fat cat sat on the mat," he murmured. Then, "I wonder how long the snow will last," he said. "It was only powdering the ground when we landed . . . Fisher's Notes don't say anything about any snow. He mentioned 'light rains.' Of course, he wasn't here very long."

"Damn Fisher," Hyatt said. "Damn Carville, too."

A little over two weeks later the

blizzards stopped, gave way to light falls of snow like those they had seen when the flagship put them down with supplies and equipment for two hundred days, the length of a year on the second planet of Fisher's Binary. For two hundred days the four of them were to stay—

". . . or for such lesser or greater period as the Expedition Authorities may think proper or necessary, until relieved," said the Final Directives. ("As if we had a chance to go anywhere else," Hyatt growled.) There wasn't anything new in the FDs, there never was. It had been made clear to them from the start that they were to "secure as large a quantity of Carville's Roots as possible, similar amounts of the gum and/or sap of the plant if made available, and any specimens of the whole plant taken *in situ* if, on investigation, you are satisfied this may be done without any affront to local mores."

It was also repeated, in both General Instructions and Final Directives, that the Expedition "should endeavor to obtain specimens of the plant in each season, so that the stages of development may be observed." This was in order to find out at what stage of development it might be best suited for medical use. Whilst engaged in plucking the plants *in situ* (making damned sure this was not an offense against the moral code of Fishbein Two), they were to make

a large number of standard tests of the *situ* "in order to ascertain the feasibility of cultivating the plant aforesaid in some region more closely proximate to the Settled Systems." And, in their spare time, to carry on the usual routines of meteorological, socio-anthropological, geological, ecological, and et-ceteralogical research and observation.

The blizzards had prevented most of this, of course. Now, with even the light falls of powdery snow ceased, two-man teams had started out scouting the place in the blower.

Fisher's Notes had stated that the largest land-mass (which appeared to be the only inhabited one) lay in the southern hemisphere of the second planet. The snows were melting slightly, the two suns glowed thinly in the misty sky. It was Day 37—as Leiser had, of course, pointed out the instant the cal-clock pinged the departure of Day 36—when he and Hyatt set off in the blower to make dimension shots of the western end of the mainland.

"Still no signs of anything like a settlement in this whole place," Hyatt said. "Guess they can't stand one another's conversation. Not that I blame—"

"I was wondering about my ladinos," said Leiser, giving no references as to when, where, why, or what.

"You were, huh?"

"Gosh, they probably won't know me when I get back."

"No, huh."

"But I'll stop, first, and get some little worms for them."

"Is that a forest fire ahead?" Hyatt pointed. "Look—and there, too!"

Dirty-colored columns rose, wavering, high into the air ahead of them at several points—then blended into a dun, diffused mass.

"Doesn't *look* like a forest fire, George. Or even a brush fire." They took the blower down to just above safety level and, turning at right angles, began to skim parallel to the lines of smoke—if it was smoke.

"Ladinos, you know, George, ladinos aren't easy to— George? George, *what*—?"

Later on he joked about it, comparing himself to the coalminer's canary. But at that particular moment George Hyatt wasn't joking. His face blue and congested, he reached—lungs straining vainly—for the oxygen mask. It eluded his struggling fingers. It was Leiser who, even before adjusting his own, fixed Hyatt's mask on his face and turned on the oxygen. It was Leiser who piloted the blower back to the camp. And, of course, it was Leiser—it *would* be Leiser—who remarked, on entering the headquarters hut, "Gee, the funniest thing just happened: We had some trouble breathing out there— didn't we, George?"

Macklin and Koley, forewarned and foremasked, took the blower out to get a look. "It seems to come right out of the ground," Mack said, on his return. "Right up from rifts in the snow-banks. I thought at first it might be a subterranean fire—your coal-mine simile, George—but now I rather think it may be some sort of natural gas."

Koley, looking out the window, said, "Smokey gas drifting down from the northwest—mist and fog drifting up from the southeast—what will happen if they meet? Let's take a look at the barometer."

The glass was down, way down; and what happened when "they" met was the thickest, filthiest, foulest smog any of them had ever seen. The headquarters hut was insulated, but it wasn't pressurized (Fisher's Notes having said nothing about any smog), and the fumes crept in faster than they could be driven out. A perpetual ginger-colored haze hung in the air, the men peered at one another through burning, weeping eyes.

"Item," said Macklin, "my eyes feel like they'd rather not. Item, my head aches fit to burst. Item, my mouth tastes like a convict's shoe—"

Leiser rubbed the tears away, squinted at the still-gauges. "I don't seem to have any appetite, sort of," he mourned. "I'm hungry, but I can't *eat*. Isn't that a funny thing?"

"Remind me to laugh," said Hyatt.

The door started its familiar resounding. "Beware the Gooks," Hyatt croaked, "when they come bearing—oh, gahdamn it, all *right!* T'lah-k'chl Oh'h'rr-um! And he always moves in so slowly, too—" He took an oxygen set with him, and no one gainsayed him. The usual stomping noises heralded the return of the native. Koley murmured that now, at least, they knew those must be social, as now there was no snow to knock off.

Wisps of the smog seemed to play about the visitor. He had nothing else on, certainly, except his warts, which went all the way down and all the way up.

"Hherrhwo," he gargled at them.

"Tippecanoe and Tyler, too," said Macklin. They had still no idea of his own name, if he had one, and all of them had long since passed through and out of the stage of giving aliens odd, arch, fancy or ridiculous names. So, reviving an ancient if short-lived fad of naming pets with common proper names, they had decided to call him Joseph.

"Hherrhwo. Dz'hosegh," said the alien, now. It was not at all certain he got the idea. He had a bundle of roots with him, as always—fine, jumbo ones this time, and he wanted two knives apiece. What he did with all the knives, was another question.

Hyatt suggested he traded them for wives in the mating season.

"Ahoy, Joseph," Macklin said, tapping the cartridge and listening to it. It seemed to have enough use in it yet, so he fitted it into the recorder. "Listen, how long will this smog last?" And he tried, haltingly, to repeat the question in Joseph's language. Joseph thought it over, blowing out his lips and rubbing his warts. Then he said something which might have meant Soon, Tomorrow, By and By, or Presently.

It lasted, by actual count, thirty-three days from the onset. They arose (decidedly precipitously) from sleep on Day 34. Their eyes were clear, their heads didn't ache, there was no offensive taste in their mouths, and they all had fine appetites. . . . But the water reached up to their knees.

It rose slowly enough after that, the first day of the rising, so that they were able to convey most of their supplies and equipment to the nearest hill. And the waters kept on rising.

"I guess Fisher must have come either at the beginning or end of the rainy season," Macklin said, after they had—laboriously, and by dangerously overloading the blower—managed to save about half of their gear from the floods by moving to the highest point of land in the vicinity. "'Light rains'—ha!"

Hyatt damned Fisher with the most lurid curses available to English, Hindi, Neo-Xosa, Inter-gal, and Vegan. Then he repeated them for Carville—"With knobs on," he said.

Koley, returning from his task of spraying a repellant circle around the camp to discourage such minor specimens (fortunately, there seemed no major ones) of local fauna as had decided to share the hill, had a question to ask.

"Well, we know how long the rains will last, anyway, don't we?"

"Forty days and forty nights," said Hyatt, huddling over the heating unit in the emergency shelter, and watching the rains come down—not so much in sheets as in blankets.

The botanist shook his head. "It was snowing lightly when we came," he said. "After about twenty-six days of blizzards it started slackening. The smog lasted just thirty three days. We can figure that we missed about three days of snow before we landed. And there were about three days between the end of it and the start of the smog. So, say, thirty-two days for the snow season. There ought to be a month of rain."

And there was, too, though after a week or so the waters stopped rising. Joseph came less frequently, but he came, none the less, banging lustily on the piece of tree-trunk (lighter than balsa)

on which he paddled up. Since they had observed at their original meeting that he had only four digits on each hand, it had come as no surprise that he couldn't count past eight (and the inevitable argument among them: did the six-unit system of counting—dozens, sixty seconds, sixty degrees—imply the former existence of a six-fingered race?). It was equally expected that he was unable to tell exactly when the rains would stop, but answered Macklin's inquiries with a phrase which might have meant A Long Time, Never, or, After A While.

"Gee, isn't it a funny thing," Leiser mused, "that we never see any of the other natives, except from the blower. Is Joseph their chief, maybe?"

"Maybe he's cornered the supply of roots," Hyatt suggested. "He drives a hard bargain with the knives."

But Macklin rather thought that Joseph acted as agent or comprador for his brethren. "What comes after the rains, Joseph?" he asked. "After the Big Waters—what? Hey?"

"Khey? . . . After Big Waters—No Waters."

"What, none at all?"

He busied himself with binding up his bundle of newly-acquired knives, and made no answer. On the thirtieth day the waters began to subside rapidly and only scattered showers fell. On

the thirty-third day these stopped.

And then the drought began.

All the springs dried up, the ponds vanished, the brooks retreated underground, and in a sky suddenly free of any haze the double suns blazed down. For a few days they were able to bring up small amounts of water by drilling in the creek-beds. After that the still was obliged to cease operations on Carville's Fluid and start refining sea-water brought in by the blower. It didn't produce enough, of course, for more than drinking, cooking, and a wipe with a damp cloth.

"This can't go on," said Hyatt, faintly, on the twentieth day.

"Thus far shalt thou come, and no farther—' Hey?" From Macklin.

"Only eighty-five more days before the relief comes," Koley pointed out in his soft voice. "And think of afterwards: When you're a hundred and fifty, in the prime of vigorous middle-age, you'll look back on this time and smile about it."

In just twelve days time Hyatt did smile. That was when the water returned to the springs, brooks and ponds. "Come on in," he yelled to Macklin. "The water's fine . . . What are you standing there brooding about?"

Macklin shrugged, began to take off his clothes. "I was wondering what's next," he said.

He found out the next day.

Leiser was the first one up. "Gee," he said, "look at all the flowers!" Then he sneezed.

Hyatt yawned, stretched, padded to the window. "What flowers?" he asked. Leiser gestured. As far as they could see, the ground was carpeted with a kaleidoscope of colors. "You mean, for once—a *nice* season on this damned place? I can't believe it. They're probably poisonous."

In a way, he was right.

Evidently they were not all allergic to the same plants. Leiser sneezed continuously until his nose began to bleed. Then he went on sneezing again—deep, painful, convulsive sneezes. Hyatt's eyes turned yellow and began to exude a pussy discharge. The slightest light was agony to him. Koley broke out in blisters which burned like fire, inside and out. Macklin could keep no solid food down and had the dry heaves almost continuously.

And yet it was Macklin who went to the door to let Joseph in, Hyatt lying on his bed with his eyes tightly covered, silent for once.

"They're smaller than usual," Mack said, gagging and grimacing. "But I can't haggle . . . a knife apiece: take them and—"

After a long, quiet minute Koley asked, "What's the matter?" Macklin handed over the bundle of roots. "Sticky, aren't they?" Koley said. Then, "The sap! This

is the first time we've seen them gummy." He looked up. Mack gestured towards Joseph. Leiser began to sneeze again. Joseph was licking his fingers of the sap with a long, black tongue.

"There's nothing wrong with *him*," the linguist said. "For every venom, nature hath her antidote . . ." He scraped a dark blob off a root, tasted it, raised his eyebrows, began to nibble.

After eight hours he pronounced himself entirely cured, and ate a hearty meal. The others, whom he had urged to wait and see, fell upon the bundle of fresh roots, scraping, licking, chewing. It provided a perfect cure for all of them—or, more exactly, a relief which began to flag only the day Joseph arrived with another batch.

"The Expedition Authorities won't like it that we ate up the sap we're supposed to collect," Leiser pointed out. Hyatt suggested that the Expedition Authorities participate in a particularly complex Vegan perversion, and even Koley and Macklin seemed undisposed to worry.

"Look at what some of the ancient expeditions had to put up with," he said. "They even, on occasion, ate one another."

Koley looked up from his worktable. "Do you suppose that's what might have happened to Carville and his men?" he asked.

Hyatt wiggled. "I'd rather not

think of Carville and his men," he said. "As the time gets close to our relief, I find myself getting rather nervous . . . Do you suppose they will get here before the snows?"

"Before the snows?"

Hyatt glared. "I assumed I spoke clearly. And I also assume that the seasons on this planet follow a definite cycle. Hence, as it was snowing when we arrived, it ought to be snowing again when we leave—if we leave exactly on time, that is. I trust I have made this clear, Koley."

Koley swung around and glared back. "Clear as mud," he said, in a loud voice. "Your assumptions are based on the further assumption that you can do simple arithmetic. Which you obviously can't. The year here is two hundred days long. We are to spend two hundred days here. Of these, one hundred seventy-odd have elapsed. Since each season lasts somewhat over thirty days, and since thirty days have passed since the flower season began, there is every reason to believe that we are scheduled to have one more season *before* the snows start. Or is this too complicated?"

Leiser said he wished to hell Koley would shut up. "Yell, yell, yell, that's all you do," he said. In

a short time none of them were on speaking terms.

It was five days later that Hyatt, brooding from the corner in which he had taken to spending much of his time (it was safer that way: no one could sneak up on him from behind), saw Koley tip-toe across the room and brain Leiser with the hammer. Macklin laughed heartily.

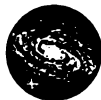
"Should we eat him," he asked, tears spilling down his cheeks.

Hyatt said, "It must be the gum of the roots. We took too much of it. We took too much of it. We—"

Koley gave Leiser another smash for good measure. Then he looked up. "The trouble with you, George," he said, "is that you're out of your mind. So was Leiser out of his mind. So is Macklin out of his mind. You know who the only sane people are around here? Joseph and I, that's who. And Joseph's friends, I guess, too."

But Koley was wrong about Joseph, as they learned very shortly. . . . Another thing they learned about Joseph—and his friends—when the natives broke the door down and poured into the room, screaming incoherently, was just exactly what all the knives had been wanted for.





There has been much loose talk to the effect that it is impossible to exceed the speed of light, which is of course absurd. As the Good Doctor shows, we've been doing it for years.

THE BUG-EYED VONSTER

by Isaac Asimov

IN NOVEMBER 1959, A BEAUTIFUL NEW PROTON SYNCHROTRON was put into operation in Geneva, Switzerland, with a 3500 ton magnet and a peak power of 38,000 kilowatts. It is nearly three city blocks in diameter and is about $\frac{2}{5}$ of a mile in circumference. It cost \$30,000,000.

All this is easy to marvel at and newspaper stories have *tsk-tsked* at all the statistics with vehemence. The whole point of the thing, however, is that it produces particles with energies of 24 to 30 Bev—and this is *tsk-ed* at, too, but the articles never bother to explain what a Bev is beyond sometimes saying it is an abbreviation for “billion electron volts,” and then they never explain “electronvolt.” (I, myself, as an old science fiction hand, always have the urge to read Bev as “bug-eyed vonster” and I am hoping to exorcize the urge by using the phrase as the title of this article.)

I'm telling you this time, then (tears of gratitude enter the soft¹ blue eyes of the Kindly Editor whenever I choose to be topical), about the problem of the electron-volt in connection with this glorious new instrument of science, and will touch on a few other allied topics which will undoubtedly arise.

¹ Some observers have used the word “soggy” in this context, others, “poached,” or “despairing”—but I offer no explanations in print.—THE KINDLY EDITOR

A charged particle moves through an electric field and gains kinetic energy doing so, just as you would gain kinetic energy if you moved through a gravitational field, as in falling from an airplane. The amount of energy gained in the process (in either case) depends on the mass of the moving object and the velocity attained. The velocity attained depends in turn upon the intensity or potential of either type of field. (Thus, as you know, you would fall more quickly and land with a splashier thud in a plane-fall on Earth than one on Mars, which planet has a lower gravitational potential.)

For particle energies, physicists make use of the electron as the unit of mass (it being the lightest charged particle) and the volt as the unit of electrical potential (it being the most common unit). An electron falling through an electric potential of one volt gains one electron-volt of energy. What could be more straightforward?

But that still doesn't tell us how much energy an electron-volt represents. I could explain by saying that an electron-volt equals 1.60×10^{-12} ergs (or somewhat over a trillionth of an erg, if you prefer words to figures) but does that help? Few of us can picture an erg either.

However, there's a way out of the impasse! Let's begin by considering that the value of the kinetic energy of any object can be related to its mass and velocity by the following equation:

$$e = \frac{1}{2}mv^2 \qquad (\text{Equation 1})$$

where "e" represents kinetic energy, "m" represents the mass, and "v" the velocity of the moving body. If the mass is measured in grams and the velocity in centimeters per second, then the kinetic energy comes out in ergs.

This equation can be applied easily to a proton with a kinetic energy of 1 electron-volt. The mass of a proton is 1.66×10^{-24} grams, and the kinetic energy, as I have just said, is 1.60×10^{-12} ergs. Substituting those values for "m" and "e" respectively in Equation 1, and solving for "v" we get the answer 1.4×10^8 , or 1,400,000 centimeters per second. In our common units, this comes, roughly, to 8.7 miles a second.

There, I think, is a clear picture of an electron volt. It represents the kinetic energy of a proton speeding along at 8.7 miles a second, a velocity somewhat greater than that of a moon-probe rocket.

Since kinetic energy is proportional to the square of the velocity, a proton at double the electron-volt velocity (which is therefore moving at 17.4 miles a second) would have an energy of 4 electron-volts; one

moving at 34.8 miles a second would have an energy of 16 electron-volts; and so on.

Back in the 1920's, when physicists were trying to smash atomic nuclei by bombarding them with energetic particles, they first used alpha particles fired out of naturally radioactive substances. Then they tried to accelerate protons in high-potential electric fields in order to get a larger, cheaper and better supply of energetic particles.

The first physicists to produce protons with sufficient energy to bring about nuclear reactions were John D. Cockroft and Ernest Walton in England. In 1928, they used what they called a "voltage multiplier" to build up an electric potential high enough to produce protons of nearly 400,000 electron-volt energies. Such protons move at velocities of 5,500 miles a second.

In America, in the 1930's, Robert Jemison Van de Graaf, used structures shaped like half a dumbbell set upright and within them created higher potentials still so that eventually he could produce protons with energies as high as 4,000,000 electron-volts. As particles in the millions of electron-volts became common, physicists avoided the use of an overabundance of zeroes, by adopting a derived unit, the Mev (for "million electron-volts.")

One Mev, naturally, is equal to 1.60×10^{-6} ergs, or to rather more than a millionth of an erg. A proton with an energy of 1 Mev travels at a velocity of 8,700 miles a second.

But the principle of creating energetic particles by building up ever higher potentials reached as high as it could profitably go with Van de Graaf. An alternate principle that came in about 1930 took over. Instead of energizing protons by yanking them on under the pull of a huge potential, small potentials were used over and over again.

This is analogous to a situation involving a child in a swing. You might send the child high into the air by giving him a mighty push. Or you might do the same by giving him a small push every time he comes down and starts up again. The small pushes would add up over a period of time and eventually send him flying high without your ever having had to exert yourself unduly at any one time.

In the latter case, however, the series of pushes must be carefully synchronized. If you push the child on the swing while he is still moving backward and before he has started his natural forward motion, you will slow the swing rather than speed it.

In the early 1930's, "linear accelerators" were built, in which the speeding proton moved through a succession of cylinders, in each one

of which it got a new potential push. The difficulty lay in so timing the potential pushes that the proton got a kick forward each time it entered a new cylinder and not an undesired kick backward.

Ernest Orlando Lawrence got around this difficulty by introducing a magnet, the presence of which caused the flying protons to travel in a curved path (so that the instrument was named a "cyclotron.") For reasons I won't go into, it is easier to synchronize the potential pushes as the proton goes flying round and round the instrument, giving it a new push twice every revolution. With each push it travels more quickly and as it speeds up, it curves less and less under the influence of the magnetic field so that it travels in an expanding spiral. Eventually, protons spiral out of the instrument altogether and smash into their target with whatever energy they had gained in the interval.

Lawrence built his first cyclotron in 1931, a home-made job less than a foot in diameter, which could nevertheless produce protons with energies of nearly $1\frac{1}{4}$ Mev. By 1939, a large cyclotron at the University of California (Lawrence's home-base), five feet across, was producing 20 Mev. protons.

Using Equation 1, we can calculate that a 20 Mev proton is travelling at a speed of 38,500 miles a second. If it were travelling at this speed in a straight line, it would reach the Moon in a trifle over six seconds. Unfortunately, Equation 1 is only an approximation, one which works at low speeds but not at high. Now that we're pushing the proton into the sort of velocity involved in the Mev range of energies, something new must be added.

In using Equation 1 to calculate the kinetic energy at varying velocities, or vice versa, it is naturally assumed that the value of the mass, "m," remains constant as velocity varies.

But it doesn't. As long ago as the 1890's, the Dutch physicist, Hendrik Antoon Lorentz, showed that the mass of a charged particle increased with velocity, according to the following equation:

$$m^* = m / \sqrt{1 - v^2/c^2}$$

(Equation 2)

where "m" is the mass of a body at rest, and "m*" is its mass when it is moving at velocity "v." The symbol "c" represents the velocity of light in a vacuum. (A decade later, Einstein advanced his theory of relativity which showed, among other things, that this increase of mass with velocity applied to all objects and not merely to charged particles.)

The velocity of light in a vacuum is 186,282 miles a second, and this is so high that for any ordinary values of "v" (say, a few miles a second or even a few thousand miles a second), the expression " v^2/c^2 " is equal to nearly zero, so that " $1-v^2/c^2$ " and its square root, are both equal to just about 1. Therefore, for any value of velocity less than, say, 10,000 miles a second, " m^* " is just about equal to " m ."

That means that in all ordinary aspects of life, mass might just as well be considered as not varying with velocity, and Equation 1 will do for everything. It was only with the discovery of radioactivity and super-speedy subatomic particles, which was the first time mankind ever came up against velocities of over 10,000 miles a second, that the approximation turned out to be insufficient.

By the time protons of 20 Mev energy were obtained in the cyclotron, the use of Equation 1 would lead, as I said, to a calculated proton velocity of 38,500 miles a second, or a respectable 20 percent of the speed of light. But using equation 2, it turns out that a proton travelling at such a speed has a mass equal to 1.06 times its mass at rest.

With such an increase in mass, it is no longer sufficient to calculate the velocity of such particles by Equation 1, because at energies in the Mev range a significant part of the energy is represented in increased mass rather than in velocity. Equations 1 and 2 may be combined:

$$e = \frac{1}{2}mv^2 / \sqrt{1 - v^2/c^2} \quad (\text{Equation 3})$$

Using Equation 3, it turns out that a 20 Mev proton has a speed of only 36,200 miles a second.

But the mass increase throws off the cyclotron. The cyclotron administers its synchronized pushes on the principle that the increased energy of the particle would go entirely into increased velocity. At 20 Mev, however, the protons are travelling at only 94 percent the velocity they "ought" to be travelling at, and the pushes are falling out of phase. The protons were beginning to be slowed rather than hastened and energies of much past 20 Mev did not seem possible unless something was done.

Something *was* done. In 1944, a Russian physicist, V. I. Veksler, designed a modified cyclotron in which the electric potential was slowly decreased as the mass of the speeding protons increased so that the synchronization of pushes was just maintained. By the 1950's, such "synchrocyclotrons" were producing protons with energies of up to 800 Mev.

Using Equation 3, it turns out that an 800 Mev proton is travelling at about 125,000 miles a second ($\frac{2}{3}$ the speed of light) and has a mass equal to 1.8 times its rest mass.

Even the synchrocyclotron, however, has its limit. As the protons spiral out and out, they eventually escape from within the magnetic field of the instrument and then no more energy can be piled into them. Fortunately, in the early 1940's, devices called "synchrotrons" had been designed and built for the acceleration of electrons. In these, the stream of particles was made to travel in a true circle and not in a spiral. The stream was kept within the magnetic field longer than would otherwise have been possible and the energy could be built up to extraordinary high levels. At the desired moment, a transient change in the magnetic field was introduced, and a pulse of high-energy particles was sent out of the instrument and into the target.

This principle was adapted in the early 1950's to protons and so came into being the most powerful type of atom-smashers yet built, the "proton synchrotron."

With such instruments, energies of over 1,000 Mev were attained for the first time. Since 1 Mev equals 1,000,000 electron-volts, 1,000 Mev equals 1,000,000,000 electron-volts, or (in the United States, at least) one billion electron-volts. For that reason 1,000 Mev can be set equal to 1 Bev.

One Bev is the energy equivalent of 1.60×10^{-3} ergs, or something over a thousandth of an erg, and this is a tremendous amount of energy to concentrate into a single particle. The particles in cosmic rays have energies of this amount and higher, however, so when the proton synchrotron at Brookhaven was built in 1952 and found capable of producing energies of between 2 and 3 Bev, it was called the "Cosmotron." A larger instrument at the University of California, produced particles of between 5 and 6 Bev and was called the "Bevatron." An instrument in the Soviet Union called the "Phasotron" produces protons with energies up to 10 Bev, and, of course, the new Geneva instrument can reach up to 30 Bev, while instruments now building are expected to reach 50 Bev.

By the time energies in the Bev region are attained, most of the additional energy being piled into the particles goes into an increase in mass rather than into an increase in velocity. The maximum possible velocity is that of light in a vacuum. At that velocity, we are setting " v " equal to " c ," and " v^2/c^2 " consequently equals 1. This means that " $1 - v^2/c^2$ " and its square root are both equal to zero.

If you go back to Equation 2 now, you will see that this means that at the speed of light, " m^* " is equal to " m_0 ," which is a way of saying that mass grows infinite at the speed of light. Checking with Equation 3, you will see that, in the same way, the kinetic energy of any object grows infinite at the speed of light.

This is one of the reasons why it is logical to suppose that the speed of light in a vacuum is the maximum possible velocity, since to have a greater velocity would entail a more than infinite mass and a more than infinite amount of kinetic energy, both of which are unthinkable.

Already at 800 Mev, the velocity of the proton has reached $\frac{2}{3}$ that of the speed of light. At 10 Bev, the protons are flying at a speed of just about 186,000 miles a second (nearly 99.9 percent of the speed of light) and have masses equal to about 20 times the normal rest mass of the proton.

For greater energies, there can be practically no further increase in velocity; an additional couple of hundred miles a second at most, and this can be ignored. Almost all the additional energy goes into mass. If the energy is doubled, the mass is doubled.

But if we really want to marvel, we must turn away from man-made devices and consider the heavens. The most powerful instruments yet conceived can't light a candle to some of the particles in cosmic rays. To be sure, most of those particles have energies in the lower Bev range, but a small percentage of them attain much higher energies; even unbelievably high energies.

The most energetic cosmic ray particles yet measured have the fantastic energy count of 5,000,000,000 Bev. Fewer than one cosmic ray particle out of a hundred trillion is that energetic, but there are enough of them to make them worth considerable study.

Such a super-energetic cosmic ray particle, travelling virtually at the speed of light would have a mass equal to ten billion times the rest mass of a proton. (This would still be equal to only about a hundred-trillionth of a gram, however.) Further, such a particle must have as much energy concentrated into its tiny size as would be represented by an ounce weight travelling at 18 miles an hour.

(This sounds like a formidable matter. The bombardment of Earth by the equivalent of ounce weights travelling at 18 miles an hour makes it seem as though there ought to be occasional casualties; brain concussions at the least. Of course, it's not really that bad. An ounce weight with that energy, striking your head suddenly, would transfer all its energy, minus some energy of rebound, to your skull with sad results.

A cosmic ray particle with that same energy would go right through you, losing little, if any, energy in the process. It's the energy you *absorb* that does the damage. Of course, the cosmic ray particle may deliver just a smidgeon of energy to a key protein molecule in the brain and do some subtle damage that will shorten your life but that's another story.)

Right now, there is considerable interest in the superenergetic cosmic ray particles because information concerning them may decide between two competing theories as to cosmic ray formation. In both theories, the cosmic ray particles are supposed to originate from stars as a result of particularly energetic nuclear reactions taking place.

The first theory supposes that cosmic ray particles are shot out with energies in the lowest range, say not more than 1 Bev. Such energies could easily be produced by a supernova. As these particles pass through the small magnetic field associated with the Galaxy, and other fields associated with stars, they travel complicated spiral paths picking up energy as they go, just as though the Galaxy were a super-colossal cyclotron.

As they travel, they may collide with stars or planets and be taken out of circulation. The longer a cosmic ray particle remains on its travel, the more energy it piles up, but also the greater its chances for coming to the end of its road. For that reason, the cosmic-ray particles Earth encounters include many low-energy particles, fewer higher-energy particles, still fewer still-higher-energy particles and so on.

Meanwhile, as a particle gains in energy, its path becomes less curved. Eventually, its path is so uncurved that it passes outside the limits of the Galaxy (as a proton may pass outside the limits of a cyclotron) and be gone forever.

That, as I say, is the first theory.

The second theory is that the cosmic ray particles are originally produced with the energies they possess when we encounter them. This is a far less likely theory than the first because the most energetic reactions we can imagine on the basis of present knowledge (say the collision of an anti-matter star with a star of ordinary matter) could produce only about 250 Bev particles. Nothing we can imagine can produce a 5,000,000,000 Bev particle from scratch. But that is just what makes the second theory fascinating. If, against all expectations, it should turn out that the second theory is correct, it would mean that physicists would have to go back and reconsider all of nuclear theory to find out where such energies could come from at a blow. How the foundations would tremble!

How could the super-particles themselves settle the matter? Well,

suppose one to have been fired out of the super-catastrophe that created it. In that case, its path would be just about straight, bending very little for the sake of the puny magnetic fields through which it might flash. The direction from which it strikes the counter that detects it would be the direction of the super-castrophe that created it.

If that super-catastrophe is a rare thing that happens only in an exceptional Galaxy, then all the super-particles will come from a few highly specific directions. If, on the other hand, the super-catastrophe is common enough so that it might happen to a small percentage of the stars in any Galaxy, then it should happen to a small percentage of the stars in our own Galaxy. And since the stars of our own Galaxy are so much closer to us than the stars in any other Galaxy, we ought to intercept many more of the super-particles from our own Galaxy than from any other.

But almost all the stars in the Galaxy are in the plane of the Milky Way, and ninety percent of them are in the direction of the Galactic Center (which lies in the constellation Sagittarius). Therefore, almost all the super-particles ought to reach us from the plane of the Milky Way and ninety percent of them ought to come from Sagittarius.

In either case, the theory of energy-formation-at-a-blow would require the super-particles to come from only certain parts of the sky, not all.

On the other hand, if cosmic ray particles begin life as mild creatures of a mere Bev or two of energy and go spiralling around here and there through magnetic fields until they've picked up enough energy to become super-particles, *then*, after all that spiralling, they can end up coming from any direction at all.

So far, preliminary results indicate that the super-particles are indeed coming from all directions, which is the expected but dull answer.

Oh, well, we can't have everything.

These Bev-type particles bring up another point insufficiently discussed in science fiction stories: *i.e.* that it is possible, in all sober truth, to go faster than the speed of light. Now I know I have been saying it isn't, but if you'll look closely, you will see that what I say is that it is impossible to go faster than the speed of light *in a vacuum*. The speed of light *in a vacuum* is about 186,282 miles a second, but in any transparent medium other than a vacuum, light travels at a lesser speed. The particular speed can be obtained by dividing the vacuum speed of light by the index of refraction of the transparent medium under consideration.

By this method, we can prepare a small table:

Substance	Index of Refraction	Speed of Light (miles/second)
Water	1.33	140,000
Quartz	1.46	128,000
Glass (average)	1.7	110,000
Diamond	2.42	77,000
Rutile	2.90	64,400

(In case you're wondering, rutile is a transparent form of titanium dioxide.)

Well, a proton of a mere 75 Mev or so will dash through rutile at a speed greater than that of light passing through rutile. A 10 Bev proton will outstrip light in diamond or glass. The 30 Bev proton of the new Geneva synchrotron will handily outrace light even in water.

When a particle exceeds the speed of light in a particular medium, it throws backward a "wake" of radiation, just as a plane exceeding the speed of sound throws back a wake of sound. The blue-white radiation given off by a faster-than-light particle is called "Cerenkov radiation," after P. A. Cerenkov, the Soviet physicist who first noted it in 1934.

But pumping particles through transparent liquids and solids at velocities greater than that of light in those media is child's play to the modern physicist. What is harder is to do the same in the case of gases. Air, for instance, has an index of refraction which, at sea-level pressures, is equal to 1.0002926. This means that the velocity of light in sea-level air is equal to 186,227 miles a second, which is 55 miles a second less than the speed of light in a vacuum.

A proton moving at a velocity of 186,227 miles a second has an energy of just about 20 Bev, which means that any proton with more energy than that can leave a trail of Cerenkov radiation in air.

Nor is air the prize package. Both hydrogen and helium have indices of refraction lower than that of air; being 1.000132 and 1.000036 respectively. Light therefore travels at speeds of 186,257 miles a second in hydrogen at sea-level pressures and 186,275 miles a second in helium at sea-level pressure.

For a proton to leave Cerenkov radiation in hydrogen, it must have an energy of over 28 Bev; while to do the same in helium, it must have an energy of over 180 Bev. This means that the Geneva synchrotron can manage to produce protons that will leave Cerenkov radiation wakes in air and, just barely, in hydrogen, but not in helium.

Naturally, the super-energetic cosmic ray particles can do better. The 5,000,000,000 Bev particles travel at a velocity that falls only about an inch a minute short of the velocity of light in a perfect vacuum.

In other words, suppose a super-particle and a beam of light start from Alpha Centauri in our direction. Both would have to travel about 25,000,000,000,000 miles to get here and both would take about 4.3 years to do it. The light beam would get here first, but with just a 30-mile lead, which is darned little considering the length of the race-track. The cosmic ray particle would cover that final 30 mile gap in less than one six-thousandth of a second.

If we assume that the index of refraction of hydrogen falls off linearly as the pressure decreases, then a sample of hydrogen rarefied to about a ten-millionth of its sea-level density would be sufficient to slow up light to the point where it travelled only as quickly as a 5,000,000,000 Bev cosmic ray particle.

To any casual inspection, hydrogen gas at such a low density level would be considered a vacuum, but the super-particle would show this wasn't so by the Cerenkov trail it would leave (assuming it could be detected.)

But that's as far as it goes. The density of hydrogen gas in interplanetary space is far rarer still and the best cosmic ray particle ever detected comes nowhere near producing Cerenkov radiation in outer space.

Oh, well; again I say, we can't have everything.





New Maps of Hell

by Damon Knight

THIS MONTH THE MOST INTERESTING and significant item in our field is not a science fiction book, but a book about science fiction: *NEW MAPS OF HELL*, by Kingsley Amis (Harcourt, Brace, \$3.95).

Amis, the lionized author of *LUCKY JIM* and two other satirical novels, is a young (38) English lecturer who took part last year in the Christian Gauss Seminars in Criticism at Princeton.

He asked himself what *different* subject he might consider—and came up with science fiction. This book is based on the lectures.

"... whatever my shortcomings, I am not that peculiarly irritating kind of person, the intellectual who takes a slumming holiday in order to 'place' some 'phenomenon' of 'popular culture'; one recalls with aversion those attempts to 'place' jazz by academic musicians who thought Duke Ellington's band was a kind of minstrel troupe."

Jazz and s.f., for Amis, have a good deal in common. "Both emerged as self-contained entities some time in the second or third decade of the century, and both, far more precisely, underwent rapid internal change around 1940. [. . .] Both of these fields, again, have thrown up a large number of interesting and competent figures without producing anybody of first-rate importance; both have arrived at a state of anxious and largely naïve self-consciousness [. . .]"

He notes that s.f., like jazz, has an indefinable and incommunicable special appeal—you either dig it or don't—and goes on to try his hand at two definitions of the field, of which the second is of interest: s.f. "presents with verisimilitude the human effects of spectacular changes in our environment, changes either deliberately willed or involuntarily suffered."

His tone is self-deprecatingly, and rather self-consciously, ironic; nevertheless, his observations are impressively documented and shrewd. Inevitably, he slips now and then, as when he swallows Richard Matheson's puerilities, in *I AM LEGEND*, as plausible scientific rationalizations of the vampire story (and writes "aerophobic" for "anaerobic"); or when he states flatly, "What will certainly not do is any notion of turning out a science-fiction love story."*

What particularly fascinates me about the book, however, is its vivid demonstration of how much any critic is at the mercy of his own bias. To Amis, although he perceives and respects other values, the main thing about science fiction is its satiric quality. This shows conspicuously in his assessment of s.f. writers: he calls Fred Pohl "the most consistently able writer science fiction, in the modern sense, has yet produced."† At the other end of the scale, he deprecates H. G. Wells' work as being not "a daring imaginative statement" but "a concretisation." By this ugly word, Amis means

the quality which to me is the supreme achievement not only of the story in question, but of all notable fantasy writing: the quality which gives a story life, makes it a thing-in-itself, rather than a shadow or projection of anything else.

Amis' hunger for satire in s.f. is unsatisfied even by Orwell's savage and bitter 1984, "which instead of being the remote nightmare it is could have been the savage *short-range* admonitory satire on political forces that Orwell had it in him to write and that nobody since has even looked like writing."

Presumably what Amis likes most about *GULLIVER'S TRAVELS* is its mockery of the people and institutions of Swift's day, rather than the story for its own sake. From my own bias over to this is such a leap, that I get a strictly science-fictional jolt out of sharing Amis' viewpoint.

But certainly his bias is as good as mine; so is the bias of the technically minded critic who wants more wiring diagrams, or the socially minded critic who wants more lectures. If there is anything reassuring in all this, it is that s.f. is more fruitful and various than we generally (in our biased impatience) realize; it contains all the things Amis praises, as well as all the things for which he professes to look in vain: short-range satire, sexual inventiveness, anti-interplanetary-colonialism propaganda,

*Cf. "The Lovers," by Philip Jose Farmer, "A Saucer of Loneliness," by Theodore Sturgeon, and "The Escape," by Don A. Stuart, among others.

†His evaluations of other writers are odd: he slights Kornbluth, and calls Mervyn Peake "a bad fantasy writer," which is simply incomprehensible until you realize that for Amis, this phrase is identical with "a fantasy writer."

and a lot more, all except a tithe of it crud, according to Sturgeon's Rule; yet what are we all but God's sparrows?

DR. FUTURITY (Ace, 35¢) is another of Philip K. Dick's curiously intense and murky nightmares. This one uses the familiar gambit of the modern man transported to a future world, and makes him a medical doctor, charged with saving a man's life, in a eugenic society which views life-saving not only as criminal but as a moral offense.

The story is even less plausible than usual; for instance, Dr. Parsons has barely had time to identify the language of the future as a synthetic blend of English, German and Latin, before we find him speaking and understanding such sentences as "The only complexion of your type, in my experience, is the result of a highly contagious plague." Ignoring such lapses, and Dick's frequent stylistic howlers, is worth your while; Dick's plot may be jerry-built, but his visions of horror are authentic. He has a gift for making his stock backgrounds look lived-in (as when Parsons finds a cigarette butt smoldering on the control panel of a deserted spaceship); he also has the ability, almost alone among s.f. writers, to make the politics of his future worlds sound like more than perfunctory pieties. Banal though it is at times ("Good

God, he thought. I'm lost in space and I'm lost in time. In both dimensions"), this novel has moments of unexpected vividness and power. And as usual (Mr. Amis please note), Dick has a needle sharpened for our own society: "By denying such a powerful reality [as death], you undermined the rational basis of your world. You had no way to cope with war and famine and overpopulation because you couldn't bring yourselves to discuss them.' "

Roald Dahl, the author of the eleven stories in *KISS KISS* (Knopf, \$3.95), writes like a less distinguished but still highly ingenious John Collier. Most of these stories are put together with off-hand plainness; the surprise ending is all, and more often than not, the ending is no surprise. But there are memorable shocks in "Royal Jelly," in which a child turns into a bee, and in "William and Mary," wherein the project of keeping a man's severed head alive is treated in uncommonly minute clinical detail: and in "The Landlady," whose plot I will not give away, Dahl approaches the master's elegance. This perfect little story is like the Chinese water torture compressed into half a dozen exquisite drops.

Admirers of L. Sprague de Camp's fantasies about the classical past may be interested to hear

that in his new series of historical novels he is turning in very much the same kind of performance. His latest, **THE BRONZE GOD OF RHODES** (Doubleday, \$4.50), has for its central figure Chares of Lindos, who built the Colossus. (Incidentally, it's disheartening to reflect that the novel must have been given the title it has because Doubleday thought—and if they don't know, who should?—that not enough people would know what "Colossus" meant.) As always, de Camp's ancient world is full of scholarly detail and irreverent snickers. ("Some of my best friends are Phoenicians.") Though somewhat contrived and overlong, the book has wonderfully entertaining passages, and the battle scenes, in particular, are superb. I bring this up here only to pose a question: if de Camp's hero this time is a real Rhodian instead of a fake one, but otherwise conducts himself in much the same way—what difference does it make?

FANCYCLOPEDIA II, compiled and published by Dick Eney (417 Fort Hunt Road, Alexandria, Va., \$1.25) is a mammoth work of fannish scholarship—186 large mimeographed pages (a few upside down)—based on an earlier edition by Jack Speer, but incor-

porating much new material. If you don't know what s.f. fans are like, or what kind of facts are indexed in this **FANCYCLOPEDIA**, I haven't got room to tell you here, and will have to let one quotation speak for all:

"**AGHARTI**: In some branches of occultism, and in many's the story in *Amazing or Other Worlds*, a buried city in the Tibet area which may or may not be the home of the King of the World (the ultimate psychic adept) but which always contains individuals so full of philosophic wisdom that they slosh audibly when they walk."

IN PASSING

Lippincott has published a **CANTICLE FOR LEIBOWITZ**, by Walter M. Miller Jr. (\$4.95), an expansion and tying together of a series of three stories which appeared here as "A Canticle For Leibowitz," "And the Light Is Risen," and "The Last Canticle."

THE MENACE FROM EARTH (\$3.50) and **THE UNPLEASANT PROFESSION OF JONATHAN HOAG** (\$3.50) are two collections of Robert A. Heinlein's stories just issued by Gnome Press. One story in each collection appeared in these pages.

Small, neat, golden bugs that kill off ants and wasps, even clean the furniture, should be handy to have around the house. But suppose they are alien—could they really share a single human purpose or concept?

THE GOLDEN BUGS

by Clifford D. Simak

IT STARTED AS A LOUSY DAY.

Arthur Belsen, across the alley, turned on his orchestra at six o'clock and brought me sitting up in bed.

I'm telling you, Belsen makes his living as an engineer, but music is his passion. And since he is an engineer, he's not content to leave well enough alone. He had to mess around.

A year or two before he'd gotten the idea of a robotic symphony, and the man has talent, you have to give him that. He went to work on this idea and designed machines that could read—not only play, but read—music from a tape, and he built a machine to transcribe the tapes. Then he built a lot of these music machines in his basement workshop.

And he tried them out!

It was experimental work, quite understandably, and there was redesigning and adjusting to be done and Belsen was finicky about

the performance that each machine turned out. So he tried them out a lot—and loudly—not being satisfied until he had the instrumentation just the way he thought it should be.

There had been some idle talk in the neighborhood about a lynching party, but nothing came of it. That's the trouble, one of the troubles, with this neighborhood of ours—they'll talk an arm off you, but never do a thing.

As yet no one could see an end to all the Belsen racket. It had taken him better than a year to work up the percussion section and that was bad enough. But now he'd started on the strings and that was even worse.

Helen sat up in bed beside me and put her hands up to her ears, but she couldn't keep from hearing. Belsen had it turned up loud, to get, as he would tell you, the feel of it.

By this time, I figured, he prob-

ably had the entire neighborhood awake.

"Well, that's it," I said, starting to get up.

"You want me to get breakfast?"

"You might as well," I said. "No one's going to get any sleep with that thing turned on."

While she started breakfast, I headed for the garden back of the garage to see how the dahlias might be faring. I don't mind telling you I was delighted with those dahlias. It was nearly fair time and there were some of them that would be at bloom perfection just in time for showing.

I started for the garden, but I never got there. That's the way it is in this neighborhood. A man will start to do something and never get it done because someone always catches him and wants to talk awhile.

This time it was Dobby. Dobby is Dr. Darby Wells, a venerable old codger with white chin whiskers and he lives next door. We all call him Dobby and he doesn't mind a bit, for in a way it's a badge of tribute to the man. At one time Dobby had been an entomologist of some repute at the university and it had been his students who had hung the name on him. It was no corruption of his regular name, but stemmed rather from his one-time interest in mud-dauber wasps.

But now Dobby was retired,

with nothing is the world to do except to hold long and aimless conversations with anyone he could manage to nail down.

As soon as I caught sight of him, I knew that I was sunk.

"I think it's admirable," said Dobby, leaning on his fence and launching into full-length discussion as soon as I was in voice distance, "for a man to have a hobby. But I submit it's inconsiderate of him to practice it so noisily at the crack of dawn."

"You mean that," I said, making a thumb at the Belsen house, from which the screeching and the caterwauling still issued in full force.

"Exactly," said Dobby, combing his white chin whiskers with an air of grave deliberation. "Now, mind me, not for a moment would I refuse the man the utmost admiration . . ."

"Admiration?" I demanded. There are occasions when I have a hard time understanding Dobby. Not so much because of the pontifical way in which he talks as because of the way he thinks.

"Precisely," Dobby told me. "Not for his machines, although they are electronic marvels, but for the way in which he engineers his tapes. The machine that he rigged up to turn out those tapes is a most versatile contraption. Sometimes it seems to be almost human."

"When I was a boy," I said, "we

had player pianos and the pianos ran on tapes."

"Yes, Randall, you are right," admitted Dobby, "the principle was there, but the execution—think of the execution! All those old pianos had to do was tinkle merrily along, but Belsen has worked into his tapes the most delicate nuances . . ."

"I must have missed them nuances," I told him, without any charity at all. "All I've heard is racket."

We talked about Belsen and his orchestra until Helen called me in for breakfast.

I had no sooner sat down than she dragged out her grievance list.

"Randall," she said, with determination, "the kitchen is positively crawling with grease ants again. They're so small you can hardly see them and all at once they're into everything."

"I thought you got rid of them," I said.

"I did. I tracked them to their nest and poured boiling water into it. But this time it's up to you."

"Sure thing," I promised. "I'll do it right away."

"That's what you said last time."

"I was ready to," I told her, "but you beat me to it."

"And that isn't all," she said. "There are those wasps up in the attic louvres. They stung the little Montgomery girl the other day."

She was getting ready to say

more, but just then Billy, our eleven-year-old, came stumbling down the stairs.

"Look, Dad," he cried excitedly, holding out a small-size plastic box. "I have one here I've never seen before."

I didn't have to ask one what. I knew it was another insect. Last year it had been stamp collecting and this year it was insects—and that's another thing about having an idle entomologist for a next door neighbor.

I took the box without enthusiasm.

"A lady bug," I said.

"No, it's not," said Billy. "It's too big to be a lady bug. And the spots are different and the color is all wrong. This one is gold and a lady bug is orange."

"Well, look it up," I said, impatiently. The kid will do anything to keep away from reading.

"I did," said Billy. "I looked all through the book and I couldn't find it."

"Oh, for goodness sakes," snapped Helen, "sit down and eat your breakfast. It's bad enough to be overrun with ants and wasps without you spending all your time catching other bugs."

"But, Mom, it's educational," protested Billy. "That is what Dr. Wells says. He says there are 700,000 known families of insects . . ."

"Where did you find it, son?" I asked, a bit ashamed of how we

both were hopping onto him.

"Right in my room," said Billy.

"In the house!" screamed Helen.

"Ants aren't bad enough . . ."

"Soon as I get through eating, I'll show it to Dr. Wells."

"Now, don't you pester Dobby."

"I hope he pesters him a lot,"

Helen said, tight-lipped. "It was Dobby who got him started on this foolishness."

I handed back the box and Billy put it down beside his plate and started in on breakfast.

"Randall," Helen said, taking up her third point of complaint. "I don't know what I'm to do with Nora."

Nora was the cleaning woman. She came in twice a week.

"What did she do this time?"

"It's what she doesn't do. She simply will not dust. She just waves a cloth around and that is all there's to it. She won't move a lamp or vase."

"Well, get someone else," I said.

"Randall, you don't know what you're talking about. Cleaning women are hard to find and you can't depend on them. I was talking to Amy . . ."

I listened and made the appropriate replies. I'd heard it all before.

As soon as I finished breakfast, I took off for the office. It was too early to see any prospects, but I had some policies to write up and some other work to do and I could use the extra hour or two.

Helen phoned me shortly after noon and she was exasperated.

"Randall," she said, without preamble, "someone has dumped a boulder in the middle of the garage."

"Come again," I said.

"You know. A big rock. It squashed down all the dahlias."

"Dahlias!" I yipped.

"And the funny thing about it is there aren't any tracks. It would take a truck to move a rock that big and . . ."

"Now, let's take this easy. How big, exactly, is this boulder?"

"It's almost as tall as I am."

"It's impossible!" I stormed. Then I tried to calm myself. "It's a joke," I said. "Someone played a joke."

I searched my mind for someone who might have done it and I couldn't think of anyone who'd go to all the trouble involved in that sort of joke. There was George Montgomery, but George was a sobersides. And Belsen, but Belsen was too wrapped up in music to be playing any jokes. And Dobby—it was inconceivable he'd ever play a joke.

"Some joke!" said Helen.

Nobody in the neighborhood, I told myself, would have done a trick like that. Everyone knew I was counting on those dahlias to win me some more ribbons.

"I'll knock off early," I told her, "and see what can be done about it."

Although I knew there was precious little that could be done about it—just haul the thing away.

"I'll be over at Amy's," Helen said. "I'll try to get home early."

I went out and saw another prospect, but I didn't do too well. All the time I was thinking of the dahlias.

I knocked off work in the middle of the afternoon and bought a spray-can of insecticide at a drug-store. The label claimed it was effective against ants, roaches, wasps, aphids and a host of other pests.

At home, Billy was sitting on the steps.

"Hello, son. Nothing much to do?"

"Me and Tommy Henderson played soldier for a while, but we got tired of it."

I put the insecticide on the kitchen table, then headed for the garden. Billy trailed listlessly behind me.

The boulder was there, squarely in the middle of the dahlia patch, and every bit as big as Helen said it was. It was a funny looking thing, not just a big slab-sided piece of rock, but a freckled looking job. It was a washed-out red and almost a perfect globe.

I walked around it, assessing the damage. There were a few of the dahlias left, but the better ones were gone. There were no tracks, no indication of how the rock

might have gotten where it was. It lay a good thirty feet from the alleyway and someone might have used a crane to hoist it off a truck bed, but that seemed most unlikely, for a heavy nest of utility wires ran along the alley.

I went up to the boulder and had a good, close look at it. The whole face of it was pitted with small, irregular holes, none of them much deeper than a half an inch, and there were occasional smooth patches, with a darker lustre showing, as if some part of the original surface had been knocked off. The darker, smoother patches had the shine of highly polished wax, and I remembered something from very long ago—when a one-time pal of mine had been a momentary rock collector.

I bent a little closer to one of the smooth, waxy surfaces and it seemed to me that I could see the hint of wavy lines running in the stone.

"Billy," I asked, "would you know an agate if you saw one?"

"Gosh, Dad, I don't know. But Tommy would. He is a sort of rockhound. He is hunting all the time for different kinds of rocks."

He came up close and looked at one of the polished surfaces. He wet his thumb against his tongue and rubbed it across the waxy surface to bring out the satin of the stone.

"I don't know," he said, "but I think it is."

He backed off a ways and stared at the boulder with a new respect.

"Say, Dad, if it really is an agate—if it was one big agate, I mean, it would be worth a lot of money, wouldn't it?"

"I don't know. I suppose it might be."

"A million dollars, maybe."

I shook my head. "Not a million dollars."

"I'll go get Tommy, right away," he said.

He went around the garage like a flash and I could hear him running down the driveway, hitting out for Tommy's place.

I walked around the boulder several times and tried to estimate its weight, but I had no knowledge I could go on.

I went back to the house and read the directions on the can of insecticide. I uncapped and tested it and the sprayer worked.

So I got down on my knees in front of the threshold of the kitchen door and tried to find the path the ants were using to come in. I couldn't see any of them right away, but I knew from past experience that they are little more than specks and almost transparent in the bargain and mighty hard to see.

A glittery motion in one corner of the kitchen caught my eye and I wheeled around. A glob of golden shimmer was running on the floor, keeping close to the

baseboard and heading for the cabinet underneath the kitchen sink.

It was another of the outsize lady bugs.

I aimed the squirt can at it and let it have a burst, but it kept right on and vanished underneath the cabinet.

With the bug gone, I resumed looking for the ants and found no sign of them. There were none coming in the door. Or going out, for that matter. There were none on the sink or the work table space.

So I went around the corner of the house to size up Operation Wasp. It would be a sticky one, I knew. The nest was located in the attic louvre and would be hard to get at. Standing off and looking at it, I decided the only thing to do was wait until night, when I could be sure all the wasps were in the nest. Then I'd put up a ladder and climb up and let them have it, then get out as fast as I could manage without breaking my fool neck.

It was piece of work that I frankly had no stomach for, but I knew from the tone of Helen's voice at the breakfast table there was no ducking it.

There were a few wasps flying around the nest, and as I watched a couple of them dropped out of the nest and tumbled to the ground.

Wondering what was going on.

I stepped a little closer and then I saw the ground was littered with dead or dying wasps. Even as I watched, another wasp fell down and lay there, twisting and squirming.

I circled around a bit to try to get a better look at whatever might be happening. But I could make out nothing except that every now and then another wasp fell down.

I told myself it was all right with me. If something was killing off the wasps it would save me the job of getting rid of them.

I was turning around to take the insecticide back to the kitchen when Billy and Tommy Henderson came panting in excitement from the backyard.

"Mr. Marsden," Tommy said, "That rock out there is an agate. It's a banded agate."

"Well, now, that's fine," I said.

"But you don't understand," cried Tommy. "No agate gets that big. Especially not a banded agate. They call them Lake Superior agates and they don't ever get much bigger than your fist."

That did it. I jerked swiftly to attention and went pelting around the house to have another look at the boulder in the garden. The boys came pounding on behind me.

That boulder was a lovely thing. I put out my hand and stroked it. I thought how lucky I

was that someone had plopped it in my garden. I had forgotten all about the dahlias.

"I bet you," Tommy told me, his eyes half as big as saucers, "that you could get a lot of money for it."

I won't deny that approximately the same thought had been going through my mind.

I put out my hand and pushed against it, just to get the solid and substantial feel of it.

And as I pushed, it rocked slightly underneath the pressure!

Astonished, I pushed a little harder and it rocked again.

Tommy stood bug-eyed. "That is funny, Mr. Marsden. By rights, it hadn't ought to move. It must weigh several tons. You must be awful strong."

"I'm not so strong," I told him. "Not as strong as that."

I tottered back to the house and put away the insecticide, then went out and sat down on the steps to do some worrying.

There was no sign of the boys. They probably had run swiftly off to spread the news throughout the neighborhood.

If that thing were an agate, as Tommy said it was—if it really were one tremendous agate, then it would be a fantastic museum piece and might command some money. But if it were an agate, why was it so light? No ten men, pushing on it, should have made it budge.

I wondered, too, just what my rights would be if it should turn out to be actually an agate. It was on my property and it should be mine. But what if someone came along and claimed it?

And there was this other thing: How had it gotten there to start with?

I was all tied up in knots with my worrying when Dobby came trundling around the corner of the house and sat down on the steps beside me.

"Lots of extraordinary things going on," he said. "I hear you have an agate boulder in the garden."

"That's what Tommy Henderson tells me. I suppose that he should know. Billy tells me he's a rockhound."

Dobby scratched at his whiskers. "Great things, hobbies," he said. "Especially for kids. They learn a lot from them."

"Yeah," I said, without enthusiasm.

"Your son brought me an insect for identification at breakfast time this morning."

"I told him not to bother you."

"I am glad he brought it," Dobby said. "It was one I'd never seen before."

"It looked like a lady bug."

"Yes," Dobby agreed, "There is some resemblance. But I'm not entirely certain—well, fact of the matter is, I'm not even sure that it is an insect. To tell the truth, it

resembles a turtle in many ways more than it does an insect. There is an utter lack of bodily segmentation, such as you'd find in any insect. The exoskeleton is extremely hard and the head and legs are retractible and it has no antennae."

He shook his head in some perplexity. "I can't be sure, of course. Much more extensive examination would be necessary before an attempt could be made at classifying it. You don't happen to have found any more of them, have you?"

"I saw one running on the floor not so long ago."

"Would you mind, next time you see one, grabbing it for me?"

"Not at all," I said. "I'll try to get you one."

I kept my word. After he had left I went down into the basement to look up a bug for him. I saw several of them, but couldn't catch a one. I gave up in disgust.

After supper, Arthur Belsen came popping from across the alley. He was in a dither, but that was not unusual. He is a bird-like, nervous man and it doesn't take too much to get him all upset.

"I hear that boulder in your garden is an agate," he said to me. "What do you intend to do with it?"

"Why, I don't know. Sell it, I suppose, if anyone wants to buy it."

"It might be valuable," said Belsen. "You can't just leave it out there. Someone might come along and pinch it."

"Guess there's nothing else to do," I told him. "I certainly can't move it and I'm not going to sit up all night to guard it."

"You don't need to sit up all night," said Belsen. "I can fix it for you. We can rig up a nest of trip wires and hook up an alarm."

I wasn't too impressed and tried to discourage him, but he was like a beagle on a rabbit trail. He went back to his basement and came out with a batch of wire and a kit of tools and we fell to work.

We worked until almost bedtime getting the wires rigged up and an alarm bell installed just inside the kitchen door. Helen took a sour view of it. She didn't like the idea of messing up her kitchen, agate or no agate.

In the middle of the night the clamor of the bell jerked me out of bed, wondering what all the racket was. Then I remembered and went rushing for the stairs. On the third step from the bottom I stepped on something that rolled beneath my foot and sent me pitching down the stairs into the living room. I lit sprawling and skidded into a lamp, which fell on top of me and hit me on the head. I brought up against a chair, tangled with the lamp.

A marble, I thought. That

damn kid has been strewing marbles all over the house again! He's too big for that. He knows better than to leave marbles on the stairs.

In the bright moonlight pouring through the picture window I saw the marble and it was moving rapidly—*not rolling, moving!* And there were a lot of other marbles, racing across the floor. Sparkling golden marbles running in the moonlight.

And that wasn't all—in the center of the living room stood the refrigerator!

The alarm bell was still clanging loudly and I picked myself up and got loose from the lamp and rushed for the kitchen door. Behind me I heard Helen yelling at me from the landing.

I got the door open and went racing in bare feet through the dew-soaked grass around the corner of the house.

A puzzled dog was standing by the boulder. He had managed to get one foot caught in one of Belsen's silly wires and he was standing there, three-legged, trying to get loose.

I yelled at him and bent over, scrabbling in the grass, trying to find something I could throw at him. He made a sudden lurch and freed himself. He took off up the alley, ears flapping in the breeze.

Behind me the clanging bell fell silent.

I turned around and trailed back to the house, feeling like a fool.

I suddenly remembered that I had seen the refrigerator standing in the living room. But, I told myself, that must be wrong. The refrigerator was in the kitchen and no one would have moved it. There was, first of all, no reason for a refrigerator to be in the living room; its place was in the kitchen. No one would have wanted to move it and even if they did, they'd have made noise enough to wake the house if they'd tried to do it.

I was imagining things, I told myself. The boulder and the bugs had got me all upset and I was seeing things.

But I wasn't.

The refrigerator still stood in the center of the living room. The plug had been pulled out of the outlet and the cord trailed across the floor. A puddle of water from the slowly-thawing box had soaked into the carpet.

"It's ruining the carpet!" Helen shrieked at me, standing in a corner and staring at the errant refrigerator. "And the food will all be spoiled and . . ."

Billy came stumbling down the stairs, still half asleep.

"What's going on?" he asked.

"I don't know," I said.

I almost told him about the bugs I'd seen running in the house, but caught myself in time.

There was no use upsetting Helen any more than she was right then.

"Let's get that box back where it belongs," I suggested, as matter-of-factly as I could. "The three of us can do it."

We tugged and shoved and hauled and lifted and got it back in its proper place and plugged it in again. Helen found some rags and started to mop up the sopping carpet.

"Was there something at the boulder, Dad?" asked Billy.

"A dog," I told him. "Nothing but a dog."

"I was against it from the start," declared Helen, on her knees, angrily mopping carpet. "It was a lot of foolishness. No one would have stolen the boulder. It isn't something you can just pick up and carry off. That Arthur Belsen's crazy."

"I agree with you," I told her, ruefully. "But he is a conscientious sort of fellow and a determined cuss and he thinks in terms of gadgets . . ."

"We won't get a wink of sleep," she said. "We'll be up a dozen times a night, chasing off stray dogs and cats. And I don't believe the boulder is an agate. All we have to go on is Tommy Henderson."

"Tommy is a rockhound," Billy told her, staunchly defending his pal. "He knows an agate when he sees one. He's got a big

shoe box full of ones he's found."

And here we were, I thought, arguing about the boulder, when the thing that should most concern us—the happening with the most brain-twisting implications—was the refrigerator.

And a thought came to me—a floating, random thought that came bumbling out of nowhere and glanced against my mind.

I shivered at the thought and it came back again and burrowed into me and I was stuck with it:

What if there were some connection between the refrigerator and the bugs?

Helen got up from the floor. "There," she said, accusingly, "that is the best that I can do. I hope the carpet isn't ruined."

But a bug, I told myself—no bug could move a refrigerator. No bug, nor a thousand bugs. And what was more and final, no bug would want to move one. No bug would care whether a refrigerator was in the living room or kitchen.

Helen was very businesslike. She spread the wet cloth out on the sink to dry. She went into the living room and turned out the lights.

"We might as well get back to bed," she said. "If we are lucky, we can get some sleep."

I went over to the alarm beside the kitchen door and jerked the connections loose.

"Now," I told her, "we can get some sleep."

I didn't really expect to get any. I expected to stay awake the rest of the night, worrying about the refrigerator. But I did drop off, although not for very long.

At six thirty Belsen turned on his orchestra and brought me out of bed.

Helen sat up, with her hands against her ears.

"Oh, not again!" she said.

I went around and closed the windows. It cut down the noise a little.

"Put the pillow over your head," I told her.

I dressed and went downstairs. The refrigerator was in the kitchen and everything seemed to be all right. There were a few of the bugs running around, but they weren't bothering anything.

I made myself some breakfast, then I went to work. And that was the second day hand-running I'd gone early to the office. If this kept up, I told myself, the neighborhood would have to get together and do something about Belsen and his symphony.

Everything went all right. I sold a couple of policies during the morning and lined up a third.

When I came back to the office early in the afternoon a wild-eyed individual was awaiting me.

"You Marsden?" he demanded. "You the guy that's got an agate boulder?"

"That's what I'm told it is," I said.

The man was a little runt. He wore sloppy khaki pants and engineer boots. Stuck in his belt was a rock hammer, one of those things with a hammer on one end of the head and a pick on the other.

"I heard about it," said the man, excitedly and a bit belligerently, "and I can't believe it. There isn't any agate that ever ran that big."

I didn't like his attitude. "If you came here to argue . . ."

"It isn't that," said the man. "My name is Christian Barr. I'm a rockhound, you understand. Been at it all my life. Have a big collection. President of our rock club. Win prizes at almost every show. And I thought if you had a rock like this . . ."

"Yes?"

"Well, if you had a rock like this, I might make an offer for it. I'd have to see it first."

I jammed my hat back on my head.

"Let us go," I said.

In the garden, Barr walked entranced around the boulder. He wet his thumb and rubbed the smooth places on its hide. He leaned close and inspected it. He ran a speculative hand across its surface. He muttered to himself.

"Well?" I asked.

"It's an agate," Barr told me, breathlessly. "Apparently a single, complete agate. Look here, this sort of pebbled, freckled surface

—well, that's the inverse imprint of the volcanic bubble inside of which it formed. There's the characteristic mottling on the surface one would expect to find. And the fractures where the surface has been nicked show subconchoidal cleavage. And, of course, there is the indication of some banding."

He pulled the rock hammer from his belt and idly banged the boulder. It rang like a monstrous bell.

Barr froze and his mouth dropped open.

"It hadn't ought to do that," he explained as soon as he regained some of his composure. "It sounds as if it's hollow."

He rapped it once again and the boulder pealed.

"Agate is strange stuff," he said. "It's tougher than the best of steel. I suppose you could make a bell out of it if you could only fabricate it."

He stuck the hammer back into his belt and prowled around the boulder.

"It could be a thunderegg," he said, talking to himself. "But, no, it can't be that. A thunderegg has agate in its center and not on the surface. And this is banded agate and you don't find banded agate associated with a thunderegg."

"What is a thunderegg?" I asked, but he didn't answer. He had hunkered down and was examining the bottom portion.

"Marsden," he asked, "how much will you take for this?"

"You'd have to name a figure," I told him. "I have no idea what it's worth."

"I'll give you a thousand as it stands."

"I don't think so," I said. Not that I didn't think it was enough, but on the principle that it's never wise to take a man's first figure.

"If it weren't hollow," Barr told me, "it would be worth a whole lot more."

"You can't be sure it's hollow."

"You heard it when I rapped it."

"Maybe that's just the way it sounds."

Barr shook his head. "It's all wrong," he complained. "No banded agate ever ran this big. No agate's ever hollow. And you don't know where this one came from."

I didn't answer him. There was no reason for me to.

"Look here," he said, after a while. "There's a hole in it. Down here near the bottom."

I squatted down to look where his finger pointed. There was a neat, round hole, no more than half an inch in diameter; no haphazard hole, but round and sharply cut, as if someone might have drilled it.

Barr hunted around and found a heavy weed stalk and stripped off the leaves. The stalk, some two feet of it, slid into the hole.

Barr squatted back and stared, frowning, at the boulder.

"She's hollow, sure as hell," he said.

I didn't pay too much attention to him. I was beginning to sweat a little. For another crazy thought had come bumbling along and fastened onto me:

That hole would be just big enough for one of those bugs to get through!

"Tell you what," said Barr. "I'll raise that offer to two thousand and take it off your hands."

I shook my head. I was going off my rocker linking up the bugs and boulder—even if there were a bug-size hole drilled into the boulder. I remembered that I likewise had linked the bugs with the refrigerator—and it must be perfectly obvious to anyone that the bugs could not have anything to do with either the refrigerator or the boulder.

They were just ordinary bugs—well, maybe not just ordinary bugs, but, anyhow, just bugs. Dobby had been puzzled by them, but Dobby would be the first, I knew, to tell you that there were many insects unclassified as yet. This might be a species which suddenly had flared into prominence, favored by some strange quirk of ecology, after years of keeping strictly undercover.

"You mean to say," asked Barr, astonished, "that you won't take two thousand?"

"Huh?" I asked, coming back to earth.

"I just offered you two thousand for the boulder."

I took a good hard look at him. He didn't look like the kind of man who'd spend two thousand for a hobby. More than likely, I told myself, he knew a good thing when he saw it and was out to make a killing. He wanted to snap this boulder up before I knew what it was worth.

"I'd like to think it over," I told him, warily. "If I decide to take the offer, where can I get in touch with you?"

He told me curtly and gruffly said good-bye. He was sore about me not taking his two thousand. He went stumping around the garage and a moment later I heard him start his car and drive away.

I squatted there and wondered if maybe I shouldn't have taken that two thousand. Two thousand was a lot of money and I could have used it. But the man had been too anxious and he'd had a greedy look.

Now, however, there was one thing certain. I couldn't leave the boulder out here in the garden. It was much too valuable to be left unguarded. Somehow or other I'd have to get it into the garage where I could lock it up. George Montgomery had a block and tackle and maybe I could borrow it and use it to move the boulder.

I started for the house to tell Helen the good news, although I was pretty sure she'd read me a lecture for not selling for two thousand.

She met me at the kitchen door and threw her arms around my neck and kissed me.

"Randall," she caroled, happily, "it's just too wonderful."

"I think so, too," I said, wondering how in the world she could have known about it.

"Just come and look at them," she cried. "The bugs are cleaning up the house!"

"They're what!" I yelled.

"Come and look," she urged, tugging at my arm. "Did you ever see the like of it? Everything's just shining!"

I stumbled after her into the living room and stared in disbelief that bordered close on horror.

They were working in battalions and they were purposeful about it. One gang of them was going over a chair back, four rows of them in line creeping up the chair back, and it was like one of those before-and-after pictures. The lower half of the chair back was so clean it looked like new, while the upper half was dingy.

Another gang was dusting an end table and a squad of others was working on the baseboard in the corner and a small army of them was polishing up the television set.

"They've got the carpeting all

done!" squealed Helen. "And this end of the room is dusted and there are some of them starting on the fireplace. I never could get Nora to even touch the fireplace. And now I won't need Nora. Randall, do you realize that these bugs will save us the twenty dollars a week that we've been paying Nora. I wonder if you'll let me have that twenty dollars for my very own. There are so many things I need. I haven't had a new dress for ages and I should have another hat and I saw the cutest pair of shoes the other day . . ."

"But bugs!" I yelled. "You are afraid of bugs. You detest the things. And bugs don't clean carpeting. All they do is eat it."

"These bugs are cute," protested Helen, happily, "and I'm not afraid of them. They're not like ants and spiders. They don't give you a crawly feeling. They are so clean themselves and they are so friendly and so cheerful. They are even pretty. And I just love to watch them work. Isn't it cunning, the way they get together in a bunch to work. They're just like a vacuum cleaner. They just move over something and the dust and dirt are gone."

I stood there, looking at them hard at work, and I felt an icy finger moving up my spine, for no matter how it might violate common sense, now I knew that the things I had been thinking, about the refrigerator and the boulder,

had not been half as crazy as they might have seemed.

"I'm going to phone Amy," said Helen, starting for the kitchen. "This is just too wonderful to keep. Maybe we could give her some of the bugs. What do you think, Randall? Just enough of them to give her house a start."

"Hey, wait a minute," I hollered at her. "These things aren't bugs."

"I don't care what they are," said Helen, airily, already dialing Amy's number, "just so they clean the house."

"But, Helen, if you'd only listen to me . . ."

"Shush," she said, playfully. "How can I talk to Amy if you keep— Oh, hello, Amy, is that you . . ."

I saw that it was hopeless. I retreated in complete defeat.

I went around the house to the garage, intending to move some stuff to make room for the boulder at the back.

The door was open. Inside was Billy, busy at the work bench.

"Hello, son," I said, as cheerfully as I could manage. "What's going on?"

"I'm making bug traps, Dad. To catch some of the bugs that are cleaning up the house. Tommy's partners with me. He went home to get some bait."

"Bait?"

"Sure. We found out that they like agates."

I reached out and grabbed a studding to hold myself erect. Things were going just a bit too fast to take.

"We tried out the traps down in the basement," Billy told me. "There are a lot of the bugs down there. We tried everything for bait. We tried cheese and apples and dead flies and a lot of other things, but the bugs weren't having any. Tommy had an agate in his pocket, just a little gravel agate that he had picked up. So we tried that . . ."

"But why an agate, son? I can't think of anything less likely . . ."

"Well, you see, it was this way, Dad. We'd tried everything . . ."

"Yes," I said, "I can see the logic of it."

"Trouble is," Billy went on, "we have to use plastic for the traps. It's the only thing that will hold the bugs. They bust right out of a trap made of anything but plastic . . ."

"Now, just a minute there," I warned him. "Once you catch these bugs, what do you intend to do with them?"

"Sell them, naturally," said Billy. "Tommy and me figured everyone would want them. Once the people around here find out how they'll clean a house, everyone will want them. We'll charge five dollars for half a dozen of them. That's a whole lot cheaper than a vacuum cleaner."

"But just six bugs . . ."

"They multiply," said Billy. "They must multiply real fast. A day or two ago we had just a few of them and now the house is swarming."

Billy went on working on the trap.

Finally he said: "Maybe, Dad, you'd like to come in with us on the deal. We need some capital. We have to buy some plastic to make more and better traps. We might be able to make a big thing out of it."

"Look, son. Have you sold any of the bugs?"

"Well, we tried to, but no one would believe us. So we thought we'd wait until Mom noised it around a bit."

"What did you do with the bugs you caught?"

"We took them over to Dr. Wells. I remembered that he wanted some. We gave them to him free."

"Billy, I wish you'd do something for me."

"Sure, Dad. What is it?"

"Don't sell any of the bugs. Not right away at least. Not until I say that it's O.K."

"But, gee, Dad . . ."

"Son, I have a hunch. I think the bugs are alien."

"Me and Tommy figured that they might be."

"You what!"

"It was this way, Dad. At first we figured we'd sell them just as

curiosities. That was before we knew how they would clean a house. We thought some folks might want them because they looked so different, and we tried to figure out a sales pitch. And Tommy said why don't we call them alien bugs, like the bugs from Mars or something. And that started us to thinking and the more we thought about it the more we thought they might be really bugs from Mars. They aren't insects, nor nothing else so far as we could find. They're not like anything on Earth . . ."

"All right," I said. "All right!"

That's the way kids are these days. You can't keep up with them. You think you have something all nailed down and neat and here they've beat you to it. It happens all the time.

I tell you, honestly, it does nothing for a man.

"I suppose," I said, "that while you were figuring all this out, you also got it doped how they might have got here."

"We can't be really sure," said Billy, "but we have a theory. That boulder out in back—we found a hole in it just the right size for these bugs. So we sort of thought they used that."

"You won't believe me, son," I told him, "but I was thinking the same thing. But the part that's got me stumped is what they used for power. What made the boulder move through space?"

"Well, gee, Dad, we don't know that. But there is something else. They could have used the boulder for their food all the time they traveled. There'd be just a few of them, most likely, and they'd get inside the boulder and there'd be all that food, maybe enough of it to last them years and years. So they'd eat the agate, hollowing out the boulder and making it lighter so it could travel faster—well, if not faster, at least a little easier. But they'd be very careful not to chew any holes in it until they'd landed and it was time to leave."

"But agate is just rock . . ."

"You weren't listening, Dad," said Billy, patiently. "I told you that agate was the only bait they'd go for."

"Randall," said Helen, coming down the driveway, "if you don't mind, I'd like to use the car to go over and see Amy. She wants me to tell her all about the bugs."

"Go ahead," I said. "Any way you look at it, my day is shot. I may as well stay home."

She went tripping back down the driveway and I said to Billy: "You just lay off everything until I get back."

"Where you going, Dad?"

"Over to see Dobby."

I found Dobby roosting on a bench beneath an apple tree, his face all screwed up with worry. But it didn't stop him talking.

"Randall," he said, beginning to talk as soon as I hove in sight, "this is a sad day for me. All my life I've been vastly proud of my professional exactitude in my chosen calling. But this day I violated, willingly and knowingly and in a fit of temper, every precept of experimental observation and laboratory technique."

"That's too bad," I said, wondering what he was talking about. Which was not unusual. One often had to wonder what he was getting at.

"It's those damn bugs of yours," Dobby accused me explosively.

"But you said you wanted some more bugs. Billy remembered that and he brought some over."

"And so I did. I wanted to carry forward my examination of them. I wanted to dissect one and see what made him go. Perhaps you recall my telling you about the hardness of the exoskeletons."

"Yes, of course I do."

"Randall," said Dobby, sadly, "would you believe me if I told you that exoskeleton was so hard I could do nothing with it. I couldn't cut it and I couldn't peel it off. So you know what I did?"

"I have no idea," I declared, somewhat exasperated. I hoped that he'd soon get to the point, but there was no use in hurrying him. He always took his time.

"Well, I'll tell you, then," said Dobby, seething. "I took one of

those little so-and-sos and I put him on an anvil. Then I picked up a hammer and I let him have it. And I tell you frankly that I am not proud of it. It constituted, in every respect, a most improper laboratory technique."

"I wouldn't let that worry me at all," I told him. "You'll have to simply put this down as an unusual circumstance. The important thing, it seems to me, is what you learned about the bug . . ."

And then I had a terrible thought. "Don't tell me the hammer failed!"

"Not at all," said Dobby, with some satisfaction. "It did a job on him. He was smashed to smithereens."

I sat down on the bench beside him and settled down to wait. I knew that in due time he'd tell me.

"An amazing thing," said Dobby. "Yes, a most amazing thing. That bug was made of crystals—of something that looked like the finest quartz. There was no protoplasm in him. Or, at least," he qualified, judiciously, "none I could detect."

"But a crystal bug! That's impossible!"

"Impossible," said Dobby. "Yes, of course, by any earthly standard. It runs counter to everything we've ever known or thought. But the question rises: Can our earthly standards, even remotely, be universal?"

I sat there, without saying anything, but somehow I felt a great relief that someone else was thinking the same thing I had thought. It went to prove, just slightly, that I wasn't crazy.

"Of course," said Dobby, "it had to happen sometime. Soon or late, it should be almost inevitable that some alien intelligence would finally seek us out. And knowing this, we speculated on monsters and monstrosities, but we fell far short of the actual mark of horr . . ."

"There's no reason at the moment," I told him, hastily, "that we should fear the bugs. They might, in fact, become a useful ally. Even now they are co-operating. They've seemed to strike up some sort of deal. We furnish them a place to live in and they, in turn . . ."

"You're mistaken, Randall," Dobby warned me solemnly. "These things are alien beings. Don't imagine for a moment that they and the human race might have a common purpose or a single common concept. Their life process, whatever it may be, is entirely alien to us. So must be their viewpoints. A spider is blood-brother to you as compared with these."

"But we had ants and wasps and they cleaned out the ants and wasps."

"They may have cleaned out the ants and wasps, but it was no

part, I am sure, of a co-operative effort. It was no attempt on their part to butter up the human in whose dwelling place they happened to take refuge, or set up their camp, or carve out their beachhead, however you may put it. I have grave doubt that they are aware of you at all except as some mysterious and rather shadowy monstrosity they can't bother with as yet. Sure they killed your insects, but in this they did no more than operate on a level common with their own existence. The insects might have been in their way or they may have recognized in them some potential threat or hindrance."

"But even so, we can use them," I told him impatiently, "to control our insect pests, our carriers of disease."

"Can we?" Dobby asked. "What makes you think we can? And it would not be insect pests alone, but rather all insects. Would you, then, deprive our plant life of its pollination agents—to mention just one example of thousands?"

"You may be right," I said, "but you can't tell me that we must be afraid of bugs, of even crystal bugs. Even if they should turn out to be a menace, we could find a way in which to cope with them."

"I have been sitting here and thinking, trying to get it straight within my mind," said Dobby,

"and one thing that has occurred to me is that here we may be dealing with a social concept we've never met with on this planet. I'm convinced that these aliens must necessarily operate on the hive-mind principle. We face not one of them alone nor the total number of them, but we face the sum total of them as a single unit, as a single mind and a single expression of purpose and performance."

"If you really think they're dangerous, what would you have us do?"

"I still have my anvil and my hammer."

"Cut out the kidding, Dobby."

"You are right," said Dobby. "This is no joking matter, nor is it one for an anvil and a hammer. My best suggestion is that the area be evacuated and an atom bomb be dropped."

Billy came tearing down the path.

"Dad!" he was yelling. "Dad!"

"Hold up there," I said, catching at his arm. "What is going on?"

"Someone is ripping up our furniture," yelled Billy, "and then throwing it outdoors."

"Now, wait a minute—are you sure?"

"I saw them doing it," yelled Billy. "Gosh, will Mom be sore!"

I didn't wait to hear any more. I started for the house as fast as I could go. Billy followed close

behind me and Dobby brought up the rear, white whiskers bristling like an excited billy goat.

The screen door off the kitchen was standing open as if someone had propped it, and outside, beyond the stoop, lay a pile of twisted fabric and the odds and ends of dismembered chairs.

I went up the steps in one bound and headed for the door. And just as I reached the doorway I saw this great mass of stuff bulleting straight toward me and I ducked aside. A limp and gutted love seat came hurtling out the door and landed on the pile of debris. It sagged into a grotesque resemblance of its former self.

By this time I was good and sore. I dived for the pile and grabbed up a chair leg. I got a good grip on it and rushed through the door and across the kitchen into the living room. I had the club at ready and if there'd been anybody there I would have let him have it.

But there was no one there—no one I could see.

But there was plenty else to see.

The refrigerator was back in the center of the room and heaped all about it were piles of pots and pans. The tangled coil springs from the love seat were leaning crazily against it and scattered all about the carpeting were nuts and bolts, washers, brads and

nails and varying lengths of wire.

There was a strange creaking noise from somewhere and I glanced hurriedly around to find out what it was. I found out, all right.

Over on one corner, my favorite chair was slowly and deliberately and weirdly coming apart. The upholstery nails were rising smoothly from the edging of the fabric—rising from the wood as if by their own accord—and dropping to the floor with tiny patterings. As I watched, a bolt fell to the floor and one leg bent underneath the chair and the chair tipped over. The upholstery nails kept right on coming out.

And as I stood there watching this, I felt the anger draining out of me and a fear come dribbling in to take its place. I started to get cold all over and I could feel the gooseflesh rising.

I started sneaking out. I didn't dare to turn my back, so I backed carefully away and I kept my club at ready.

I bumped into something and let out a whoop and spun around and raised my club to strike.

It was Dobby. I just stopped the club in time.

"Randall," said Dobby calmly, "it's those bugs of yours again."

He gestured toward the ceiling and I looked. The ceiling was a solid mass of golden-gleaming bugs.

I lost some of my fear at seeing

them and started to get sore again. I pulled back my arm and aimed the club up at the ceiling. I was ready to let the little stinkers have it, when Dobby grabbed my arm.

"Don't go getting them stirred up," he yelled. "No telling what they'd do."

I tried to jerk my arm away from him, but he hung onto it.

"It is my considered opinion," he declared, even as he wrestled with me, "that the situation has evolved beyond the point where it can be handled by the private citizen."

I gave up. It was undignified trying to get my arm loose from Dobby's clutching paws and I likewise began to see that a club was no proper weapon to use against the bugs.

"You may be right," I said.

He let go my arm. "Maybe you better call the cops," he told me.

I saw that Billy was peering through the door.

"Get out of there!" I yelled at him. "You're in the line of fire. They'll be throwing that chair out of here in another minute. They're almost through with it."

Billy ducked back out of sight.

I walked out to the kitchen and hunted through a cupboard drawer until I found the phone book. I looked up the number and dialed the police.

"This is Sergeant Andrews talking," said a voice.

"Now, listen closely, Sergeant," I said. "I have some bugs out here . . ."

"Ain't we all?" the sergeant asked in a happy tone of voice.

"Sergeant," I told him, trying to sound as reasonable as I could, "I know that this sounds funny. But these are a different kind of bug. They're breaking up my furniture and throwing it outdoors."

"I tell you what," the sergeant said, still happy. "You better go on back to bed and try to sleep it off. If you don't, I'll have to run you in."

"Sergeant," I told him, "I am completely sober . . ."

A hollow click came from the other end and the phone went dead.

I dialed the number back.

"Sergeant Andrews," said the voice.

"You just hung up on me," I yelled. "What do you mean by that? Im a sober, law-abiding, taxpaying citizen and I'm entitled to protection, and even if you don't think so, to some courtesy as well. And when I tell you I have bugs . . ."

"All right," said the sergeant, wearily. "Since you are asking for it. What's your name and address?"

I gave them to him.

"And Mr. Marsden," said the sergeant.

"What is it now?"

"You better have those bugs. If

you know what is good for you, there better be some bugs."

I slammed down the phone and turned around.

Dobby came tearing out of the living room.

"Look out! Here it comes!" he yelled.

My favorite chair, what was left of it, came swishing through the air. It hit the door and stuck. It jiggled violently and broke loose to drop on the pile outside.

"Amazing," Dobby panted. "Truly amazing. But it explains a lot."

"Tell me," I snapped at him, "what explains a lot?"

I was getting tired of Dobby's ramblings.

"Telekinesis," said Dobby.

"Tele-what?"

"Well, maybe only teleportation," Dobby admitted sheepishly. "That's the ability to move things by the power of mind alone."

"And you think this teleportation business bears out your hive-mind theory?"

Dobby looked at me with some astonishment. "That's exactly what I meant," he said.

"What I can't figure out," I told him, "is why they're doing this."

"Of course you can't," said Dobby. "No one expects you to. No one can presume to understand an alien motive. On the surface of it, it would appear

they are collecting metal, and that well may be exactly what they're doing. But the mere fact of their metal grabbing does not go nearly far enough. To truly understand their motive . . ."

A siren came screaming down the street.

"There they are," I said, racing for the door.

The police car pulled up to the curb and two officers vaulted out.

"You Marsden?" asked the first one.

I told him that I was.

"That's funny," said the second one. "Sarge said he was stinko."

"Say," said the first one, staring at the pile of wreckage outside the kitchen door, "what is going on here?"

Two chair legs came whistling out the door and thudded to the ground.

"Who is in there throwing out that stuff?" the second cop demanded.

"Just the bugs," I told them. "Just the bugs and Dobby. I guess Dobby's still in there."

"Let's go in and grab this Dobby character," said the first one, "before he wrecks the joint."

I stayed behind. There was no use of going in. All they'd do would be ask a lot of silly questions and there were enough of them I could ask myself without listening to the ones thought up by someone else.

A small crowd was beginning to gather. Billy had rounded up some of his pals and neighbor women were rushing from house to house, cackling like excited chickens. Several cars had stopped and their occupants sat gawping.

I walked out to the street and sat down on the curbing.

And now, I thought, it all had become just a little clearer. If Dobby were right about this teleportation business, and the evidence said he was, then the boulder could have been the ship the bugs had used to make their way to Earth. If they could use their power to tear up furniture and throw it out the house, they could use that selfsame power to move anything through space. It needn't have been the boulder; it could have been anything at all.

Billy, in his uninhibited, boyish thinking, probably had struck close to the truth—they had used the boulder because it was their food.

The policemen came pounding back out of the house and stopped beside me.

"Say, mister," said one of them, "do you have the least idea what is going on?"

I shook my head. "You better talk to Dobby. He's the one with answers."

"He says these things are from Mars."

"Not Mars," said the second officer. "It was you who said it

might be Mars. He said from the stars."

"He's a funny-talking old coot," complained the first policeman. "A lot of the stuff he says is more than a man can swallow."

"Jake," said the other one, "we better start doing something about this crowd. We can't let them get too close."

"I'll radio for help," said Jake.

He went to the police car and climbed into it.

"You stick around," the other said to me.

"I'm not going anywhere," I said.

The crowd was good-sized by now. More cars had stopped and some of the people in them had gotten out, but most of them just sat and stared. There were an awful lot of kids by this time and the women were still coming, perhaps from blocks away. Word spreads fast in an area like ours.

Dobby came ambling down the yard. He sat down beside me and started pawing at his whiskers.

"It makes no sense," he said, "but, then, of course, it wouldn't."

"What I can't figure out," I told him, "is why they cleaned the house. Why did it have to be spic and span before they started piling up the metal? There must be a reason for it."

A car screeched down the street and slammed up to the curb just short of where we sat. Helen came bustling out of it.

"I can't turn my back a minute," she declared, "but something up and happens."

"It's your bugs," I said. "Your nice house-cleaning bugs. They're ripping up the place."

"Why don't you stop them, then?"

"Because I don't know how."

"They're aliens," Dobby told her calmly. "They came from somewhere out in space."

"Dobby Wells, you keep out of this! You've caused me all the trouble I can stand. The idea of getting Billy interested in insects! He's had the place cluttered up all summer."

A man came rushing up. He squatted down beside me and started pawing at my arm. I turned around and saw that it was Barr, the rockhound.

"Marsden," he said, excitedly, "I have changed my mind. I'll give you five thousand for that boulder. I'll write you out a check right now."

"What boulder?" Helen asked. "You mean our boulder out in back?"

"That's the one," said Barr. "I got to have that boulder."

"Sell it to him," Helen said.

"I will not," I told her.

"Randall Marsden," she screamed, "you can't turn down five thousand! Think of what five thousand . . ."

"I can turn it down," I told her, firmly. "It's worth a whole lot

more than that. It's not just an agate boulder any longer. It's the first spaceship that ever came to Earth. I can get anything I ask."

Helen gasped.

"Dobby," she asked weakly, "is he telling me the truth?"

"I think," said Dobby, "that for once he is."

The wail of sirens sounded down the street.

One of the policemen came back from the car.

"You folks will have to get across the street," he said. "As soon as the others get here, we'll cordon off the place."

We got up to start across the street.

"Lady," said the officer, "you'll have to move your car."

"If you two want to stay together," Dobby offered, "I'll drive it down the street."

Helen gave him the key and the two of us walked across the street. Dobby got into the car and drove off.

The officers were hustling the other cars away.

A dozen police cars arrived. Men piled out of them. They started pushing back the crowd. Others fanned out to start forming a circle around the house.

Broken furniture, bedding, clothing, draperies from time to time came flying out the kitchen door. The pile of debris grew bigger by the moment.

We stood across the street and

watched our house be wrecked.

"They must be almost through by now," I said, with a strange detachment. "I wonder what comes next."

"Randall," said Helen, tearfully, clinging to my arm, "what do we do now? They're wrecking all my things. How about it—is it covered by insurance?"

"Why, I don't know," I said. "I'd never thought of it."

And that was the truth of it—it hadn't crossed my mind. And me an insurance man!

I had written that policy myself and now I tried desperately to remember what the fine print might have said and I had a sinking feeling. How, I asked myself, could anything like this be covered? It certainly was no hazard that could be anticipated.

"Anyhow," I said, "we still have the boulder. We can sell the boulder."

"I still think we should have taken the five thousand," Helen told me. "What if the government should move in and just grab the boulder off?"

And she was right, I told myself. This would be just the sort of thing in which the government could become intensely interested.

I began to think myself that maybe we should have taken that five thousand.

Three policemen walked across the yard and went into the house. Almost at once they came tearing

out again. Pouring out behind them came a swarm of glittering dots that hummed and buzzed and swooped so fast they seemed to leave streaks of their golden glitter in the air behind them. The policemen ran in weaving fashion, ducking and dodging. They waved their hands in the air above their heads.

The crowd surged back and began to run. The police cordon broke and retreated with what dignity it could.

I found myself behind the house across the street, my hand still gripping Helen's arm. She was madder than a hornet.

"You needn't have pulled me along so fast," she told me. "I could have made it by myself. You made me lose my shoes."

"Forget your shoes," I told her sharply. "This thing is getting serious. You go and round up Billy and the two of you get out of here. Go up to Amy's place."

"Do you know where Billy is?"

"He's around somewhere. He is with his pals. Just look for a bunch of boys."

"And you?"

"I'll be along," I said.

"You'll be careful, Randall."

I patted her shoulder and stooped down to kiss her. "I'll be careful. I'm not very brave, you know. Now go and get the boy."

She started away and then turned back. "Will we ever go back home?" she asked.

"I think we will," I said, "and soon. Someone will find a way to get them out of there."

I watched her walk away and felt the chilly coldness of the kindness of my lie.

Would we, in solemn truth, ever go back home again? Would the entire world, all of humanity, ever be at home again? Would the golden bugs take away the smug comfort and the warm security that Man had known for ages in his sole possession of a planet of his own?

I went up the backyard slope and found Helen's shoes. I put them in my pocket. I came to the back of the house and peeked around the corner.

The bugs had given up the chase, but now a squadron of them flew in a lazy, shining circle around and just above the house. It was plain to see that they were on patrol.

I ducked back around the house and sat down in the grass, with my back against the house. It was a warm and blue-sky summer day; the kind of day a man should mow his lawn.

A slobbering horror, I thought, no matter how obscene or fearful, might be understood, might be fought against. But the cold assuredness with which the golden bugs went directly to their purpose, the self-centered, vicious efficiency with which they operated, was something else again.

And their impersonal detachment, their very disregard of us, was like a chilly blast upon human dignity.

I heard footsteps and looked up, startled.

It was Arthur Belsen and he was upset.

But that was not unusual. Belsen could get upset at something that was downright trivial.

"I was looking for you everywhere," he chattered. "I met Dobby just a while ago and he tells me these bugs of yours . . ."

"They're no bugs of mine," I told him sharply. I was getting tired of everyone talking as if I owned the bugs, as if I might be somehow responsible for their having come to Earth.

"Well, anyhow, he was telling me they are after metal."

I nodded. "That is what they're after. Maybe it is precious stuff to them. Maybe they haven't got too much of it wherever they are from."

And I thought about the agate boulder. If they had had metal, certainly they'd not used the agate boulder.

"I had an awful time getting home," said Belsen. "I thought there was a fire. There are cars parked in the street for blocks and an awful crowd. I was lucky to get through."

"Come on and sit down," I told him. "Stop your fidgiting."

But he paid no attention to me.

"I have an awful lot of metal," he said. "All those machines of mine down in the basement. I've put a lot of time and work and money into those machines and I can't let nothing happen to them. You don't think the bugs will start branching out, do you?"

"Branching out?"

"Well, yes, you know—after they get through with everything in your house, they might start getting into other houses."

"I hadn't thought of it," I said. "I suppose that it could happen."

I sat there and thought about it and I had visions of them advancing house by house, cleaning out and salvaging all the metal, putting it into one big pile until it covered the entire block and eventually the city.

"Dobby says that they are crystal. Isn't that a funny thing for bugs to be?"

I said nothing. After all, he was talking to himself.

"But crystal can't be alive," protested Belsen. "Crystal is stuff that things are made of. Vacuum tubes and such. There is no life in it."

"Don't try to fight with me," I told him. "I can't help it if they are crystal."

There seemed to be a lot of ruckus going on out in the street and I got my feet to peer around the corner of the house.

For a moment there was not a thing to see. Everything looked

peaceful. One or two policemen were running around excitedly, but I couldn't see that anything was happening. It looked just as it had before.

Then a door slowly, almost majestically, detached itself from one of the police cars parked along the curb and started floating toward the open kitchen door. It reached the door and made a neat left turn and disappeared inside.

A rear vision mirror sailed flashing through the air. It was followed by a siren. Both disappeared within the house.

Good Lord, I told myself, the bugs are going after cars!

Now I saw that a couple of the cars were already minus hoods and fenders and that some other doors were missing.

The bugs, I thought, had finally really hit the jackpot. They wouldn't stop until they'd stripped the cars clean down to the tires.

And I was thinking, too, with a strange perverse reaction, that there wasn't nearly room enough inside the house to pack all those dismantled cars. What, I wondered, would the bugs do when the house was full?

A half dozen policemen dashed across the street and started for the house. They reached the lawn before the bug patrol above the house became aware of them and swooped down in a screaming, golden arc.

The policemen ran back pell-

mell. The bug patrol, its duty done, returned to circling the house. Fenders, doors, tail lights, head lights, radio antennae, and other parts of cars continued to pour into the house.

A dog came trotting out of nowhere and went across the lawn, tail wagging in friendly curiosity.

A flight of bugs left the patrol and headed down toward him.

The dog, startled by the whistle of the divine bugs, wheeled about to run.

He was too late.

There was the sickening thud of missiles hitting flesh. The dog leaped high into the air and fell over on his back.

The bugs swooped up into the air again. There were no gaps in their ranks.

The dog lay twitching in the yard and blood ran in the grass.

I ducked back around the corner, sick. I doubled up, retching, trying hard to keep from throwing up.

I fought it off and my stomach quieted down. I peeked around the corner of the house.

All was peaceful once again. The dead dog lay sprawling in the yard. The bugs were busy with their stripping of the cars. No policemen were in sight. There was no one in sight at all. Even Belsen had disappeared somewhere.

It was different now, I told myself. The dog had made it different.

The bugs no longer were a mystery only; now they were a deadly danger. Each of them was a rifle bullet with intelligence.

I remembered something that Dobby had said just an hour or so ago. Evacuate the area, he had said, then drop an atom bomb.

And would it come to that, I wondered. Was that the measure of the danger?

No one, of course, was thinking that way yet, but in time they might. This was just the start of it. Today the city was alerted and the police were on the scene; tomorrow it might be the governor sending in some troops. And in time it would be the federal government. And after that, Dobby's solution might be the only answer.

The bugs hadn't spread too far as yet. But Belsen's fear was valid; in time they would expand, pushing out their beachhead block by block as there were more and more of them. For Billy had been right when he had said they must multiply real fast.

I tried to imagine how the bugs could multiply, but I had no idea.

First of all, of course, the government probably would try to make contact with them, would attempt to achieve some communication with them—not with the creatures themselves, perhaps, but rather with that mass mind which Dobby had figured them to have.

But was it possible to commu-

nicate with creatures such as these? On what intellectual level might one approach them? And what good could possibly come of such communication if it were established? Where was the basis for understanding between these creatures and the human race?

And I realized, even as I thought all this, that I was thinking with pure panic. To approach a problem such as the bugs presented, there was need of pure objectivity—there could be no question of either fear or anger. The time had come for Man to discard the pettiness of one-plant thinking.

It was no problem of mine, of course, but thinking of it, I saw a deadly danger—that the eventual authority, whoever that might be, might delay too long in its objectivity.

There had to be a way to stop the bugs, there must be some measure to control them. Before we tried to establish contact, there must be a way in which we could contain them.

And I thought of something—of Billy telling me that to hold them once you caught them one must be a plastic trap.

I wondered briefly how the kid had known that. Perhaps it had been no more than simple trial and error. After all, he and Tommy Henderson must have tried several different kinds of traps.

Plastic might be the answer to

the problem I had posed. It could be the answer if we acted before they spread too far.

And why plastic, I wondered. What element within plastic would stop them cold and hold them once they were entrapped within it? Some factor, perhaps, that we would learn only after long and careful study. But it was something that did not matter now; it was enough we knew that plastic did the trick.

I stood there for a time, turning the matter in my mind, wondering who to go to.

I could go to the police, of course, but I had a feeling I would get little hearing there. The same would be true of the officials of the city. For while it was possible they might listen, they'd have to talk it over, they'd have to call a conference, they'd feel compelled to consult some expert before they did anything about it. And the government in Washington, at the moment, was unthinkable.

The trouble was that no one was scared enough as yet. To act as quickly as they should—they'd have to be scared silly—and I had had a longer time to get scared silly than any of the rest.

Then I thought of another man who was as scared as I was.

Belsen.

Belsen was the man to help me. Belsen was scared stiff.

He was an engineer and possibly he could tell me if what I had

been thinking was any good or not. He could sit down and figure how it might be done. He'd know where to get the plastic that we needed and the best type of it to use and more than likely he'd know how to go about arranging for its fabrication. And he might, as well, know someone it would do some good to talk to.

I went back to the corner of the house and had a look around.

There were a few policemen in sight, but not too many of them. They weren't doing anything, just standing there and watching while the bugs kept on working at the cars. They had the bodies pretty well stripped down by now and were working on the engines. As I watched I saw one motor rise and sail toward the house. It was dripping oil and chunks of caked grease and dust were falling off of it. I shivered at the thought of what a mess like that would do to Helen's carpeting and the decorating.

There were a few knots of spectators here and there, but all of them were standing at quite a distance off.

It looked to me as if I'd have no trouble reaching Belsen's house if I circled round the block, so I started out.

I wondered if Belsen would be at home and was afraid he might not be. Most of the houses in the neighborhood seemed to be deserted. But it was a chance, I

knew, that I had to take. If he wasn't at his house, I'd have to hunt him down.

I reached his place and went up the steps and rang the bell. There wasn't any answer, so I walked straight in.

The house seemed to be deserted.

"Belsen," I called.

He didn't answer me and I called again.

Then I heard footsteps clattering up a stairs.

The basement door came open and Belsen stuck his head out.

"Oh, it's you," he said. "I am glad you came. I will need some help. I sent the family off."

"Belsen," I said, "I know what we can do. We can get a monstrous sheet of plastic and drop it on the house. That way they can't get out. Maybe we can get some helicopters, maybe four of them, one for each corner of the sheet . . ."

"Come downstairs," said Belsen. "There's work for both of us."

I followed him downstairs into his workroom.

The place was orderly, as one might expect from a fussy budget such as Belsen.

The music machines stood in straight and shining lines, the work bench was immaculate and the tools were all in place. The tape machine stood in one corner and it was all lit up like a Christmas tree.

A table stood in front of the

tape machine, but it was far from tidy. It was strewn with books, some of them lying flat and open and others piled haphazard. There were scribbled sheets of paper scattered everywhere and balled-up bunches of it lay about the floor.

"I cannot be mistaken," Belsen told me, jittery as ever. "I must be sure the first time. There'll be no second chance. I had a devil of a time getting it all figured out, but I think I have it now."

"Look, Belsen," I said, with some irritation, "I don't know what hare-brained scheme you may be working on, but whatever it may be, this deal of mine is immediate and important."

"Later," Belsen told me, almost hopping up and down in his anxiety. "Later you can tell me. I have a tape I have to finish. I have the mathematics all worked out . . ."

"But this is about the bugs!"

Belsen shouted at me: "And so is this, you fool! What else did you expect to find me working on? You know I can't take a chance of their getting in here. I won't let them take all this stuff I've built."

"But, Belsen . . ."

"See that machine," he said, pointing to one of the smaller ones. "That's the one we'll have to use. It is battery powered. See if you can get it moved over to the door."

He swung around and scurried over to the tape machine and sat

down in front of it. He began punching slowly and carefully on the keyboard and the machine began to mutter and to chuckle at him and its lights winked on and off.

I saw there was no sense in trying to talk to him until he had this business done. And there was a chance, of course, that he knew what he was doing—that he had figured out some way either to protect these machines of his or to stop the bugs.

I walked over to the machine and it was heavier than it looked. I started tugging at it and I could move it only a few inches at a time, but I kept on tugging it.

And suddenly, as I tugged away, I knew without a question what Belsen must be planning.

And I wondered why I hadn't thought of it myself; why Dobby, with all his talk of A-bombs, hadn't thought of it. But, of course, it would take a man like Belsen, with his particular hobby, to have thought of it.

The idea was so old, so ancient, so much a part of the magic past that it was almost laughable—and yet it ought to work.

Belsen got up from the machine and lifted a reel of tape from a cylinder in its side. He hurried over to me and knelt down beside the machine I'd tugged almost to the door.

"I can't be sure of exactly what they are," he told me. "Crystal.

Sure, I know they're crystalline in form, but what kind of crystals—just what type of crystals? So I had to work out a sort of sliding shotgun pattern of supersonic frequencies. Somewhere in there, I hope, is the one that will synchronize with whatever structure they may have."

He opened a section of the small machine and started threading in the tape.

"Like the violin that broke the goblet," I said.

He grinned at me nervously. "The classical example. I see you've heard of it."

"Everyone has," I said.

"Now listen to me carefully," said Belsen. "All we have to do is flip this switch and the tape starts moving. This dial controls the volume and it's set at maximum. We'll open up the door and we'll grab the machine, one on each side of it, and we'll carry it as far as we can before we set it down. I want to get it close."

"Not too close," I cautioned. "The bugs just killed a dog. Couple of them hit him and went through him without stopping. They're animated bullets."

Belsen licked his lips. "I figured something like that."

He reached out for the door.

"Just a minute, Belsen. Have we got a right to?"

"A right to what?" he asked.

"A right to kill these things. They're the first aliens to come

to visit us. There's a lot we might learn from them if we could only talk to them . . ."

"Talk to them?"

"Well, communicate. Get to understand them."

And I wondered what was wrong with me, that I should be talking that way.

"After what they did to the dog? After what they did to you?"

"Yes, I think," I said, "even after what they did to me."

"You're crazy," Belsen screamed.

He pulled the door wide open.

"Now!" he shouted at me.

I hesitated for a second, then grabbed hold.

The machine was heavy, but we lifted it and rushed out into the yard. We went staggering with it almost to the alley and there the momentum of our rush played out and we set it down.

I looked up toward my house and the bug patrol was there, circling at rooftop height, a flashing golden circle in the light of the setting sun.

"Maybe," Belsen panted, "maybe we can get it closer."

I bent to pick it up again and even as I did I saw the patrolling circle break.

"Look out!" I screamed.

The bugs were diving at us.

"The switch!" I yelled. "The switch!"

But Belsen stood there, staring at them, frozen, speechless, stiff.

I flung myself at the machine

and found the switch and flipped it and then I was groveling in the dirt, rooting into it, trying to make myself extremely thin and small.

There was no sound and, of course, I had known there would be none, but that didn't stop me from wondering why I didn't hear it. Maybe, I thought, the tape had broken; maybe the machine had failed to work.

Out of the tail of my eye I saw the patrol arrowing down on us and they seemed to hang there in the air, as if something might have stopped them, but I knew that that was wrong, that it was simply fright playing tricks with time.

And I was scared, all right, but not as scared as Belsen. He still stood there, upright, unable to move a muscle, staring at oncoming death in an attitude of stricken disbelief.

They were almost on top of us. They were so close that I could see each one of them as a dancing golden mote and then suddenly each little mote became a puff of shining dust and the swarm was gone.

I climbed slowly to my feet and brushed off my front.

"Snap out of it," I said to Belsen. I shook him.

He slowly turned toward me and I could see the tension going from his face.

"It worked," he said, in a flat sort of voice. "I was pretty sure it would."

"I noticed that," I said. "You're the hero of the hour."

And I said it bitterly, without even knowing why.

I left him standing there and walked slowly across the alley.

We had done it, I told myself. Right or wrong, we'd done it. The first things from space had come and we had smashed them flat.

And was this, I wondered, what would happen to us, too, when we ventured to the stars? Would we find as little patience and as little understanding? Would we act as arrogantly as these golden bugs had acted?

Would there always be the Belsens to shout out the Marsdens? Would the Marsdens always be unable or unwilling to stand up before the panic-shouting—always fearful that their attitude, slowly forming, might be antisocial? Would the driving sense of fear and the unwillingness to understand bar all things from the stars?

And that, I told myself, was a funny thing for me, of all people, to be thinking. For mine was the house the bugs had ruined.

Although, come to think of it, they might have cost me not a dime. They might have made me money. I still had the agate boulder and that was worth a fortune.

I looked quickly toward the garden and the boulder wasn't there!

I broke into a run, breath sobbing in my throat.

I stopped at the garden's edge and stared in consternation at the neat pile of shining sand.

There was one thing I'd forgotten: That an agate, as well as bugs and goblet, was also crystalline!

I turned around and stared back across the yard and I was sore clean through.

That Belsen, I thought—him and his sliding shotgun pattern!

I would take one of those machines of his and cram it down his throat!

Then I stopped dead still. There was, I realized, nothing I could do or say.

Belsen was the hero, exactly as I had said he was.

He was the man, alone, who'd quashed the menace from the stars.

That was what the headlines would be saying, that was what the entire world would think. Except, perhaps, a few scientists and others of their kind who didn't really count.

Belsen was the hero and if I laid a finger to him I'd probably be lynched.

And I was right.

Belsen is the hero.

He turns on his orchestra at six o'clock each morning and there's no one in the neighborhood who'll say a word to him.

Is there anyone who knows how much it costs to soundproof an entire house?

In India, along the banks of the River of Life, it sometimes seems that the veil between this world and another is a thin veil, one that a man might lift if he desired to do so strongly enough. . . .

Beyond Ganga Mata

by John Berry

"LIFE IS GENERALLY FATAL," Peter Bruff said without a trace of humor. "Only—a few of us die too suddenly, leave obligations so pressing that we must return to fulfill them."

The subject caused me a degree of uneasiness which Peter evidently construed as disagreement.

He asked himself why.

"Among those present," he insisted, "are those who are too discreet to show themselves, for they exist in a different modality. If there is sufficient reason, they will appear; but it sets a dangerous precedent."

We were sitting on the verandah of his bungalow, drinking *chang*, a Tibetan liquor made of fermented millet, out of big sections of bamboo with copper bands around them. The place was Kalimpong, a mountain town in North India, surrounded by Nepal, Sikkim, and Tibet. Of Peter

Bruff I actually knew very little, except that he bought and sold Tibetan art objects. We had met in a Calcutta bar, and he had asked me up for the summer, simply. I had accepted partly because I liked him, but mainly in order to escape the heat of the Bengal plains, where I had been teaching English at Bharat University.

That morning I had seen the whole Himalayan Range spread out before a massive, slow dawn. In the mountain barrier, carved in golden snow against a flaming sky, there lay a U-shaped pass, called Nalanda. From very early times, caravans had made their way by that pass into Tibet and China, and back into India, bringing goods and evils and states of consciousness. Even now, at dusk, in the caravanserai down the mountain from us, a mule-train prepared to leave.

Peter Bruff lit his pipe. The

match flame flickered before a young, malaria-ravaged face that was handsome in an austere way. At twenty-four, his gray eyes were those of a boy who has seen too many unseasonable events. Several times Peter leaned forward as if he were about to speak, but each time he was prevented by some inner scruple. The reason for this became apparent when he finally did begin to speak. He had been born a Philadelphia Quaker and he would always be one, regardless of what else he became; he did not like to show emotion; and the story he told—which evidently affected him deeply—cost him many an un-Quakerly silence.

I have not told this to anyone before (Peter Bruff said), but I should like to tell it now—not so much to bear out the statements I made to you, but as a confession and a tribute to someone who has meant a great deal to me.

When I first came to India I stayed at Benares Hindu University with Boris Wing, a friend of mine from San Francisco. In the same house where we lived was an extraordinarily learned young Brahmin named Ananda Mahadev, who often helped Boris through the intricacies of Indian philosophy. Ananda was sitting cross-legged on a mat in his room, with — incongruously — a typewriter before him, when I first saw him. Enormous dark eyes that

seemed to have a light in them glanced up at me and through me. The light brown face, with its delicate bone structure, was both subtle and strong. Evidently he had just had his bath, as he was freshly oiled and wearing a kind of hand towel. The sacred thread of the Brahmin caste hung from his shoulder. This tall, well-formed man leaped to his feet and with great courtesy invited us in. We sat with him while he expounded a problem in Sankara's philosophy to Boris, who listened with his head on one side, his boyish, Chinese-American face very attentive. I was more aware of Ananda's whole personality—his dignity and kindness, his rich and enlightened humanity—than of his brilliant exposition of the problem.

Where Ananda found the time to devote to me I shall never know, for he was hard at work on his doctoral dissertation. But he wandered with me all over Benares, that oldest of living cities. Sometimes Boris accompanied us, but most often Ananda and I walked alone; and as we walked, we discoursed on the things of heaven and earth, the nature of reality, the destiny of man. . . .

Through that ancient hive of civilization we roamed, exploring winding streets so narrow that in places one can touch the walls on both sides at once. Against these walls we squeezed to let the god-

dess Kali pass in the form of humped, milky-white cattle with long, dark, knowing eyes, who seemed to have reached that state of detachment for which mystics strive. Beggars and wandering monks, pilgrims and prostitutes, scholars, merchants, coolies, anonymous hordes milled about with a vitality that filled me with an obscure restlessness. And they chewed *pan*, a savory leaf containing betel nut and lime and sugar, and when they spat it was crimson as a stream of blood. It was the world, the swarming world. Yet, as we walked down by the vast river which Indians call Ganga Mata—Mother Ganges, River of Life—we seemed to be walking along the boundary of another world, thinly veiled from us by the veil of Maya. There by the burning ghats we watched priests burning the bodies of the dead and casting the ashes upon the Holy River. It is the City of the Dead, to which multitudes of pious Hindus, with failing strength, hasten on their last pilgrimage; for here Ganga Mata has power to grant the soul a long sleep before another incarnation; and indeed, on Ganga Mata, Nirvana itself is near.

As we stood beside a river temple, watching the smoke curl up from the funeral pyres, and the little boats taking the ashes out on the river, I said:

"Everyone succeeds in dying. Nobody fails."

"We Hindus are relativists," said Ananda. "We are the accumulation of lives that have gone before, the premonition of lives to be lived. And do you not feel that all this is simultaneous—Now? We prepare for life beyond, and it is 'beyond' in that it is achieved by piercing deeply through the vanities of this market place, into the timeless reality. The beyond is achieved and lost, perhaps daily; but it is always there—and here within, for Ganga Mata is wherever you are."

I asked him ironically if he thought all was vanity, and he said, with his serious smile: "All is not vanity, but it is absolutely necessary to think so at certain times. If Death thought we valued life, he would make things much more difficult for us."

"You're really not serious Ananda," I said. "How can you live with so many gods? India is so crowded anyway."

"God has many aspects," he said.

I told him I was an agnostic.

"I too," he said. "And I too shall make the journey on Ganga Mata. God is also in my disbelief."

A religious festival was in progress during my last three nights in Benares. Processions of priests and multitudes of devotees swarmed through the city, bearing flower-decked images of Shiva the Destroyer in his phallic form, symbol of joy and renewal. They were a

living unity, to which I was a foreign particle. They flowed around me. I withdrew into myself.

Just before dawn, I went down to the river with Ananda to watch him at his ritual bathing and yoga exercises. He wanted me to come into the water, which was more than liberal of him, since it is, after all, holy water. I stood on the bank and looked at the muddy river, swollen by the monsoon rains. It swirled dangerously. I felt a little ashamed of myself, as I was sure I could swim better than Ananda, yet there he was in the water, beckoning me. I think the thing that kept me back was the fact that the water was really liquid mud—and we were just downstream from the burning ghats. I wouldn't have relished a mouthful of ashes, no matter how sanctified they were. Mud, perhaps, but not ashes.

After his bath he sat on the riverbank, cross-legged, in the *padmasana* or lotus-posture, and chanted Sanskrit prayers from the Vedas: noble and lofty architecture of poetry. And when he came to the final *Om*, the sacred syllable of peace, I felt thoroughly at peace. But after a time, as I watched Ananda's face, I exclaimed at the complexity I found there:

"Ananda, with all your knowledge, you are not happy! You who sit here possess the secret power of happiness. Then why not use it?"

"It is a dreadful force," he replied somberly, "which I fear to let loose, lest it destroy me and the world."

"Really, I don't understand."

"I am using my knowledge, do not fear. By not using it I am using it. . . . The Mystic Union is like the hydrogen bomb. After it there is no experience, only desolation. I am—humanity is—made of experience, fighting and suffering. Not through me shall we ever dehumanize ourselves. Not through me shall the war come to an end; for its end will be the end of Man. But you, Peter"—he smiled at me across oceans of time, with the delicate and compassionate irony of Buddha, who so loved man that he lived long—"you may come to me some night and find me seated like this, my gaze indrawn, and you will not know me. And indeed my tormented self will have ceased to exist. In its place will be that Other, the Great Self. Then sit thou and pay attention; but beware, for thou shalt be in the sacred presence of Happiness itself."

On leaving Benares, I continued my journey through India, and for a whole year I traveled restlessly from one place to another, seeking the answer to the great unformulated question that is my life. For some time I was in a Buddhist monastery in Ceylon, meditating on the prospects of pur-

ity in the mystical sense, that "emptying the self of the self" to make room for the Divine. It seemed to me an admirable way of life, and not wholly unattainable. With me it was a problem of commitment. I would have considered it a species of ingratitude to have abandoned my guiding principle, that mediocrity which has created my character—too weak for anything but change, too sensual to resist education—and which has taught me to revere all extravagances of the human spirit. Purification by nonachievement is my way. *Je suis mystique, et au fond je ne crois à rien.*

In my ignorance, I had supposed that I would find more than one person like Ananda in India. It took me a year to realize that there was no one in the world like him. I traveled the length of the country, back to Benares, to find Ananda once again. And, like a good Hindu going there to die, the closer I got to Holy Benares, the more contented I became.

Ananda was not at his lodgings. Boris Wing was away, and I could find none of the students who had known them. The university offices had closed for the day. I wandered alone through the darkening city, along the paths Ananda and I had followed, hoping that I would meet him. Night fell, and I was extremely depressed, although a great religious festival was in progress, as at this time last year.

As I walked along a dark, winding alley, a door opened to my left, several feet from the ground. A squat figure stood framed in the doorway, silhouetted against a flickering oil lamp somewhere within. He was a so-called holy man, stark naked, with long, matted hair, and he was smeared from head to foot with bluish ashes. Streamers of smoke curled slowly past him from the interior of the room, where I could see other holy men sitting on the floor, smoking hasheesh. They all had dreamy, vacant expressions on their faces—having reached, without the tiresome discipline of yoga, a state of abstraction which made them feel that they had loosened the bonds of "this world." Even in their exalted state, they were not insensitive to money. They permitted me to join them. After all, they felt, a certain license ought to prevail during a religious festival.

When I emerged, after some time, I had the sensation that I was moving along about a foot and a half above the ground, gliding rather than walking. In Chowkhambha, the market place, I floated like a wraith among the dark, festive multitude. A white face appeared before me—an albino Indian who looked strangely like me. I was unsure of my own identity on that disquieting night as I lost my way, penetrating deeper and deeper into the ahistoric, coming, at bottom, to the Golden

Temple and its eternally thrusting Shiva from which flowed all life. The strangeness and the wetnesses of other bodies, other souls, out of other ages and planets and states of being, streamed past me and around me, engulfing me. It was like some blind, autonomic process of the body on the inside—digestion and excretion, menstruation, parturition. And gradually I was being drawn *inside* with that submissive horde who went so fluidly, so "subjectively," so unproblematically. Something deep in my bones was scandalized, feeling itself near death in that life of the Womb.

At that moment, in the midst of the human sea, I saw Ananda. And at the same time he saw me. In our delight we rushed at each other and embraced in the Indian manner. I cannot tell you how moved I was—and he also. My spirits soared. . . . We did not speak for some time, but walked toward the outskirts of the city. The sky was still dark; but far away, beyond the second great bend in the river, I could detect the faintest sign of dawn. We came to Ganga Mata.

"Why have you brought me here?" Ananda asked, and his face was troubled.

"Last year you wanted me to go in with you," I said, "and I wouldn't—not because I felt too unclean for Ganga Mata, but because I thought Ganga Mata was

too unclean for me. Now we are going in."

Ananda stood on the bank, wrapped in his white Kashmiri *chaddar*, and gazed out over the waters. "Not now," he murmured. "See how turbulent she is."

I laughed and began to strip off my clothes.

"You will go in?" he asked sadly.

"I will go in."

Slowly he began to undress. I waited for him, and at length we stood naked, poised on the bank, watching the dark, violent waters swirling below us. Ananda said something which I did not catch. It sounded like "return." I looked at him, and he seemed to me, at that moment, like one of his own Vedic gods. I started to dive in, to be there when he came, in case the current was too strong for him. He stopped me. Looking into my eyes, and pointing down at the water, he said:

"Man is created out of black turmoil, out of the Chaos of the unconscious—out of nothing. Is it any wonder that he should be prone to negation, sin, and vulgar anxiety—to an inherent neurasthenia—since his dominant memory is of Chaos? What can lure him out of fear, but love and faith in love?"

"Love and faith take courage," I said, "and man is cowardly."

"The ultimate courage does not rest in man," said Ananda. "Man

is full of quibbling trepidations which only Shiva, the real Man, can allay—the Lord of Thunder, the Hero whose fighting sword vanquishes Eternal Night.” He descended into the water.

I was there before him, cutting the water with a clean dive; but I went too deep and too far. Eddies and whirlpools sucked me under. I swallowed water and mud, the current carried me far out, I exhausted myself fighting to stay afloat in that torrent. It seemed to me that I was under water most of the time. My struggles were growing weaker and I was beginning to lose consciousness, when I became aware that Ananda had me by the hair and was holding my face above water. Slowly he was drawing me to the bank, far downstream.

When we reached shore, I was half unconscious. I lay on the cold, muddy bank. Soon my whole being was suffused by a delicious warmth, and I knew vaguely that Ananda was covering me with his beautiful, white *chaddar*. I must have protested feebly at first, for I seem to remember his placing his hand on my head, and he said something like this, just before I lapsed into an exhausted sleep:

“My life has been a preparation for this moment in which I meet you. This is my great climax, the time of the fulfilment of my history. But who are you? You are anyone, it does not matter who. In

this meeting I am fully realized. There is no need for a future, any more than there is a need for a separate identity. All things converge here, now, at this point of union between thee and me: the birds reaching the goal of the evolution of flight, the sun of his career and the moon of hers, sky, stars, bridge, time, space, and destiny—all have worked toward our meeting which contains their whole purpose and significance. We, here, now, this, are the *telos*. And what do I say to thee? I say: ‘Good morning,’ and thou sayest to me: ‘Good morning,’ and we pass each other, and all things are satisfied.”

When I awoke, the dawn was full, and I was surrounded by a group of holy men who had come down to the river for their ritual ablutions. I was naked except for Ananda’s white *chaddar*. Ananda was nowhere to be seen. The holy men did not know him. I made my way back to my room near the university, bathed, and had breakfast, expecting Ananda to arrive at any moment. Before long I heard footsteps and leaped up to greet—Boris Wing.

“Petel!” he yelled, pounding me. “Where have you been? Why didn’t you write? I was worried about you.”

I apologized and tried to explain that I had been in rather a poor condition, only dreamily aware of the passage of time, and

unable to bring myself to write to anyone at all. Then I told him of my dawn adventure with Ananda, and showed him the white *chaddar*, all stained with mud.

Boris' eyes grew wide, then filled with tears. He put his hand on my shoulder and said quietly:

"Peter, I have to tell you this. Ananda was drowned in the river a year ago today."

The body had not been recovered. I burned the white *chaddar* on the river bank, and cast the ashes into Ganga Mata. . . .

Out of the caravanserai down the mountain from Peter Bruff's bungalow, the mule-train was starting on its long and perilous trip to Lhasa. One by one the laden beasts, ghostly in the moonlight, passed along the trail, although I could see no mule-driver.

I asked no questions; for I shared with Peter Bruff a strange, secret, and improbable courtesy that lay, as Ananda said, "also in my disbelief."

Those who tease God learn not to speak first.

Through Time And Space With Ferdinand Feghoot: XXVII

Ferdinand Feghoot, accompanied by his then youngest son, aged eight, rediscovered the curious planet of Robo-Cathay in 7282. He told the boy how its mechanical wonders had been created by refugees from what had been Communist China millenia before, and how Man had abandoned it to the robots during the Thousand Year Plague. He showed him how these robots had preserved all the customs of their long-vanished masters, especially Confucius' moral doctrine of filial piety, which was still their whole basis of law. Then, so that the lesson of this robotic respect for one's elders should not be lost on the boy, he took him to see the Law Courts of Robo-Cathay.

They watched while a little machine was tried for "the most shameful unfilial behavior to its parent machine." The little machine, which was designed to hold pieces of metal while the big machine worked on them, had very rudely refused.

"Papa, I don't understand!" piped up young Feghoot, as the Judge prepared to pass sentence. "What does it mean? What's wrong with the little machine?"

"My boy," said Ferdinand Feghoot, "it's a wise child that noes its own father."

—GRENDAL BRIARTON
(with thanks to Lenore Sellers)

INDEX TO VOLUME EIGHTEEN—JANUARY-JUNE 1960

AGATE, MRS.: Slammy and the Bonneygott	June	54	HANSON, JOSEPH: Ballard of the Red Giants (verse)	May	84
ANDERSON, POUL: The Only Game in Town (novelet) .	Jan.	5	HENNEBERG, CHARLES: The Blind Pilot	Jan.	37
The Martyr (short novelet) ..	Mar.	5	The Non-Humans	June	5
ASIMOV, ISAAC: Those Crazy Ideas	Jan.	55	KEYES, DANIEL: Crazy Maro (short novelet)	Apr.	5
The Sight of Home	Feb.	86	KNIGHT, DAMON: And the Truth Shall Drive You Mad	Jan.	65
The Flickering Yardstick	Mar.	79	1924	Feb.	96
About Time	Apr.	85	Concerning Enchantments ..	Mar.	89
A Piece of Pi	May	67	The Best of 1959	Apr.	96
The Bug-Eyed Vonster	June	73	Ia! Yog-Sothoth! Yah, Yah, Yah!	May	79
BERRY, JOHN: Beyond Ganga Mata	June	122	New Maps of Hell	June	84
BRADBURY, RAY: Death and the Maiden	Mar.	22	KUSENBERG, KURT: A Certain Room	Apr.	48
BRETNOR, R.: Bug-Getter	Jan.	52	LARDNER, REX: American Plan .	May	35
BRIARTON, GRENDEL: Ferdinand Peghoot, XXII-XXVII	Jan. - June		LEIBER, FRITZ: The Oldest Soldier (short novelet)	May	5
BRODE, ANTHONY: To Julia, not to gaze at Flyinge Sawcers (verse)	Jan.	36	McKENNA, RICHARD: Mine Own Ways	Feb.	31
BROWN, ROSEL GEORGE: A Little Human Contact	Apr.	75	McMORROW, FRED: The Man from Tomorrow	May	21
BUDRYS, ALGIS: The Price	Feb.	83	MOORE, WARD: The Fellow Who Married the Maxill Girl	Feb.	108
BUNCH, DAVID R.: A Little Girl's Xmas in Modernia ..	Jan.	102	MURRAY, R.: The Replacement	Feb.	67
CANTINE, HOLLEY: Double, Double, Toil and Trouble.....	Jan.	115	PANGBORN, EDGAR: The Wrens in Grampa's Whiskers	Apr.	39
COLLIER, JOHN: Man Overboard (short novelet)	Mar.	36	PORGES, ARTHUR: A Specimen for the Queen	May	57
The Tender Age	May	43	RICE, JANE: The White Pony ..	Feb.	56
CROW, LEVI: The Hairy Thunderer	Apr.	24	SCHENCK, JR., HILBERT: Memo at the Department of Agriculture (verse)	Apr.	84
DAVIDSON, AVRAM: Aprés Nous. The Sixth Season	June	62	Wockyjabber (verse)	May	78
DEFORD, MIRIAM ALLEN: The Monster	Mar.	68	Ed Lear Wasn't So Crazy (verse)	June	39
DICKSON, GORDON R.: The Game of Five (novelet)	Apr.	103	SHECKLEY, ROBERT: The Girls and Nugent Miller	Mar.	58
One on Trial	May	48	SIMAK, CLIFFORD D.: Final Gentlemen	Jan.	69
EDMONDSON, G. C.: The Galactic Calabash	Jan.	108	All the Traps of Earth	Mar.	95
Ringer	Apr.	35	The Golden Bugs	June	88
ELLIOTT, GEORGE P.: Among the Dangs (short novelet)	Apr.	52	SMITH, EVELYN E.: Send Her Victorious	Feb.	77
ELLIS, H. F.: Fireside Talk ..	June	23	STURGEON, THEODORE: Like Young	Mar.	29
FARMER, PHILIP JOSE: Open to Me, My Sister (novelet) ..	May	85	TILLEY, ROBERT J.: Apprentice .	Feb.	45
FAST, HOWARD: The First Men (novelet)	Feb.	5	WHITEHILL, JOSEPH: In the House, Another	Apr.	100
Cato the Martian	June	28	WILDE, NIALL: A Divvel With the Women	Jan.	32
GARRETT, RANDALL: Backward, Turn Backward (verse) ..	Jan.	107	WORTHINGTON, WILL: We Are the Ceiling	Feb.	99
Hot Argument (verse)	Feb.	95	The Swamp Road	June	40
Pop! (verse)	May	42			



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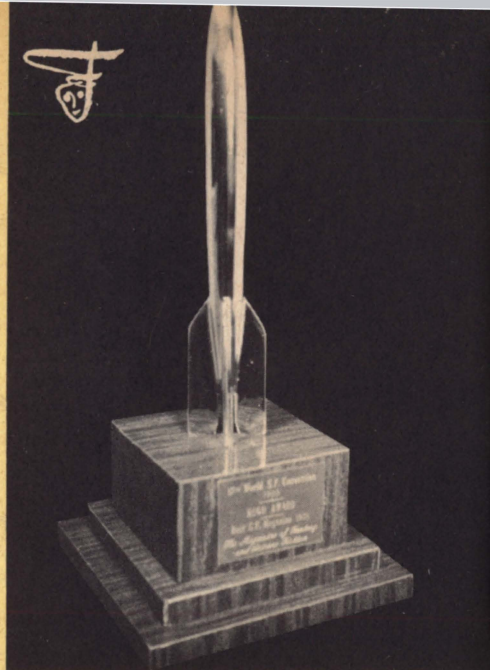
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